

Summary

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State Comparison

Includes: Summary of statistical indicators



Population

Includes: Estimated resident population, Recent trends in Victorian fertility rates, Recent trends in Victorian death rates, Australian Historical Population Statistics



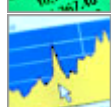
Work and Income

Includes: Labour Force Survey sample size, Labour Force Survey Standard Products and Data Item Guide, Statistical significance of movements and other comparisons, Civilian labour force by Region, Employed persons by Industry, Employed persons by Occupation, Part-time workers, Duration of unemployment, Small area unemployment rate estimates, Average weekly earnings, Small area estimates of personal income



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Includes: Air quality, Water resources

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NOTES

FORTHCOMING ISSUES

ISSUE (QUARTER)

March 2010

June 2010

Release Date

21 May 2010

20 August 2010

NOTE

State and Regional Indicators, Victoria provides a summary of statistical information for Victoria at the state and/or regional level. Included in each chapter is commentary on statistical highlights which provides analysis, graphs and maps on selected indicators.

This issue contains a feature article titled **Living Arrangements of Victorians, 2006: A Life Course Perspective**.

The statistics presented in this issue are the latest available as at 4 February 2010, with one exception. The table containing quarterly agricultural production data is presented on a common reference period for all data items. Live sheep exports data for December quarter 2009 were available at this date, but they have not been included as the remaining data in the table were not yet available for that period.

Please address feedback to:

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CHANGES IN THIS ISSUE

State and Regional Indicators, Victoria is released on a quarterly basis with chapters updated when new data are available. Chapters and tables are only included when new data are available, so the number of chapters and tables may vary between issues.

There are no new chapters in this issue. Additional content to spotlight some recent ABS annual releases has been added to two chapters: Population, and Work and Income.

The table 'Condition of VicRoads Network, By Local Government Area - 2007-08' was expected to be published in this issue of the publication, however the data are not yet available.

REVIEW OF DISSEMINATION STRATEGY

A review of the ABS Victorian office dissemination strategy for Victorian state and regional statistics, including both **State and Regional Indicators, Victoria** and the newsletter **Statistics Victoria** (cat. no. 1100.2), is in progress. Comments and feedback on the

publication are welcome at any time via the contact details listed above.

EXPLANATORY NOTES

Explanatory notes in the form found in other ABS publications are not included in **State and Regional Indicators, Victoria**. For detailed information on the statistics, users are directed to the Explanatory notes contained in related ABS publications.

Users are advised that small area estimates presented in this publication should be used with care.

Due to rounding, discrepancies may occur between sums of the component items and totals in individual tables, and between totals in related tables.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Steve Gelsi on Melbourne (03) 9615 7590.

List of historical Feature Articles

For issues prior to September 2007, feature articles are only available as part of the original PDF publication and the links below will open the applicable PDF publication.

For issues since September 2007, feature articles are available in HTML format. Up until the March 2009 issue, the articles can also be accessed as part of the original PDF publication.

Issue	Title
Jun 2009	Surplus Bedrooms in Melbourne Homes
Mar 2009	Measuring Victoria's Population
Sep 2008	Victorian Household Preparedness for Emergencies
Jun 2008	Adult Literacy and Life Skills
Mar 2008	Workplace Growth in Victoria 2000-2007
Dec 2007	Child Care Usage in Victoria
Sep 2007	2006 Census: Regional Victoria in Profile
Jun 2007	Water — Sources and Usages
Jun 2007	Personal Safety Survey
Mar 2007	Workplace Growth 2003–2005
Dec 2006	Waste and Recycling
Sep 2006	Trends in Fertility
Jun 2006	Indigenous Vital Statistics
Mar 2006	Victorian Community Indicators
Dec 2005	Profile of Seniors in Victorians
Sep 2005	The Victorian Population 1836–2005
Jun 2005	Criminal Court Outcomes 2003–2004
Sep 2004	Summary of Findings from the 2002 National Aboriginal and Torres Strait Islander Survey
Jun 2004	Building Activity and Interest Rates
Mar 2004	Children aged 0-8 years in Victoria
Sep 2003	Estimating Workplace Growth from Workcover data
Jun 2003	Housing Trends in Melbourne 1999–2002
Sep 2002	Population Change in Victoria, 1991–2001
Jun 2002	2001 Census Geography Issues
Mar 2002	Part-time Employment in Victoria

About this Release

State and Regional Indicators, Victoria (SRIV) is a quarterly publication that contains recently released statistical information about the whole of Victoria. Data is sourced from ABS and non-ABS collections. It provides measures according to a triple bottom line of economic, social and environment elements.

Most chapters contain a mix of tables, charts and commentary, to provide a basic analysis of recent movements in key economic, social and environmental data. Data is presented for varying geographic classifications, including, Victoria; Melbourne and the Balance of Victoria; down to Local Government Area for some series. The aim of the publication is to provide a picture of the situation of Victoria and enable comparison, both over time and between regions.

Core data, such as Estimated Resident Population, State Final Demand, Labour Force Statistics, Price Indexes, Building Approvals, Air Quality, and Water Storage Volumes is complemented by periodic annual data including the Condition of VicRoads Network, Recorded Crime Offences, Life Expectancy at Birth, Government Owned Housing Stock and others.

As the information is sourced from a wide variety of collections, care needs to be taken when analysing the data as time periods, definitions, methodologies, scope and coverage may differ from table to table. Advice is provided in the publication on such matters.

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State Comparison

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STATE COMPARISON

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SUMMARY OF STATISTICAL INDICATORS

This chapter summarises the key Victorian statistical indicators and compares them with the same statistical indicators for other states and Australia.

View underlying table as an Excel spreadsheet: [1367.2 State comparison \(file size 40kB\)](#).

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POPULATION

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Estimated resident population

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ESTIMATED RESIDENT POPULATION

Victoria's estimated resident population (ERP) at the end of any given period is the estimated population at the beginning of the period plus the sum of three components: natural increase, net overseas migration and net interstate migration.

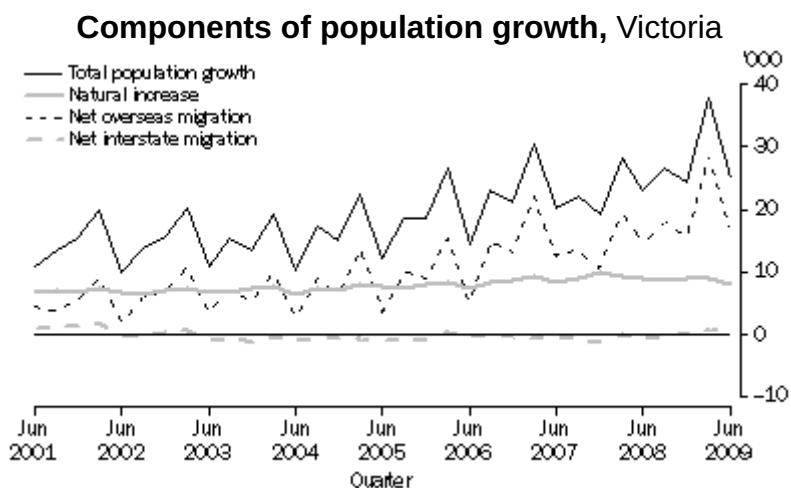
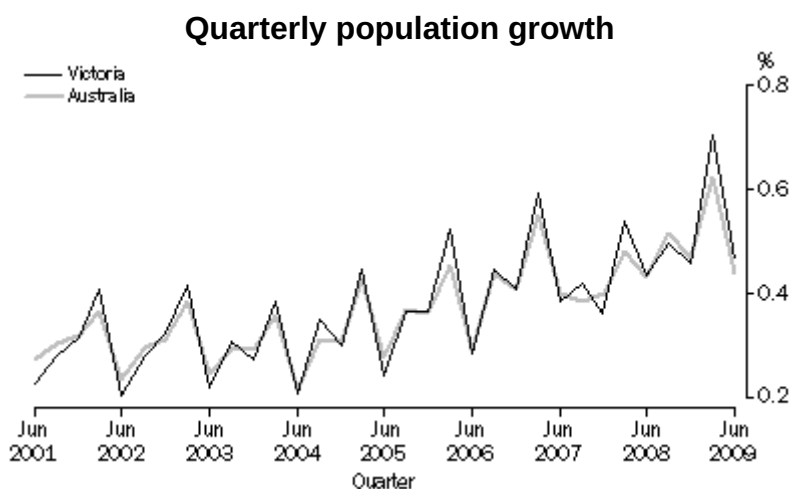
At the end of June quarter 2009, Victoria's ERP was 5,427,700 people, an increase of 25,100 (0.5%) since the end of March quarter 2009. Over the same period, Australia's ERP grew by 95,800 (0.4%). Victoria's ERP increased by 113,900 (2.1%) over the 12 months

since the end of June quarter 2008.

The largest component of Victoria's population growth in June quarter 2009 was net overseas migration (a gain of 16,800 people). Natural increase (births minus deaths) accounted for a further increase of 8,100 people.

Net interstate migration has historically meant loss of population from Victoria to other states and territories. After eleven consecutive quarters of loss, net interstate migration made a positive contribution to the state's population in March quarter 2009 (700 people) and June quarter 2009 (200 people). Since March quarter 2002, the only other quarters with a population gain from this source have been December quarter 2002, March quarter 2003 and March quarter 2006.

View underlying table as an Excel spreadsheet: [1367.2, Estimated resident population and Components of population change, Victoria \(file size 24kB\)](#).



A spreadsheet containing estimates of the resident population of Victoria by single year of age and sex at 30 June 2009 can be found in **Population by Age and Sex, Australian States and Territories** (cat. no. 3201.0) on the Downloads page (Table 2). Also accessible via the Summary page of this publication is the ABS animated population pyramid, which shows the change in the age and sex distribution over time of the population of Australia and each states and territory.

The most recent estimates of the resident population of areas at sub-state level are with

respect to 30 June 2008, and summary commentary on population growth and distribution in Victoria and its regions can be found in **Regional Population Growth, Australia** (cat. no. 3218.0) (Contents, Victoria) and **Population by Age and Sex, Regions of Australia** (cat. no. 3235.0) (Contents, Victoria). Downloadable data can also be accessed on the Downloads pages of these publications. Estimates for 30 June 2009 are scheduled for release in these publications on 30 March 2010 (cat. no. 3218.0) and 14 July 2010 (cat. no. 3235.0).

A [feature article](#) explaining how the ABS derives ERP, and the role of the Victorian regional office in producing these estimates, was published in the March quarter 2009 issue of **State and Regional Indicators, Victoria**.

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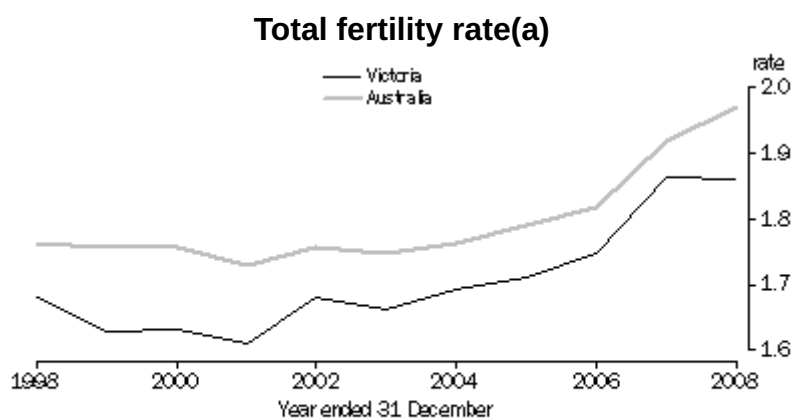
Recent trends in Victorian fertility rates

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RECENT TRENDS IN VICTORIAN FERTILITY RATES

The total fertility rate is the sum of age-specific fertility rates (live births at each age of mother per female population of that age). It represents the number of children a female would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.

A total of 71,200 births were registered in Victoria in 2008, compared with 61,100 births in 2003, an increase of 16.6%, which compares with an overall increase in estimated resident population of 7.9% over the same period. Victoria had a total fertility rate of 1.86 babies per woman in 2008, up from 1.66 babies per woman in 2003. Between 2003 and 2008, the total fertility rate in Victoria increased by 12.0%. Over the period, Victoria consistently recorded a lower total fertility rate than Australia overall.



(a) Births per woman.

Source: Births, Australia (cat. no. 3301.0).

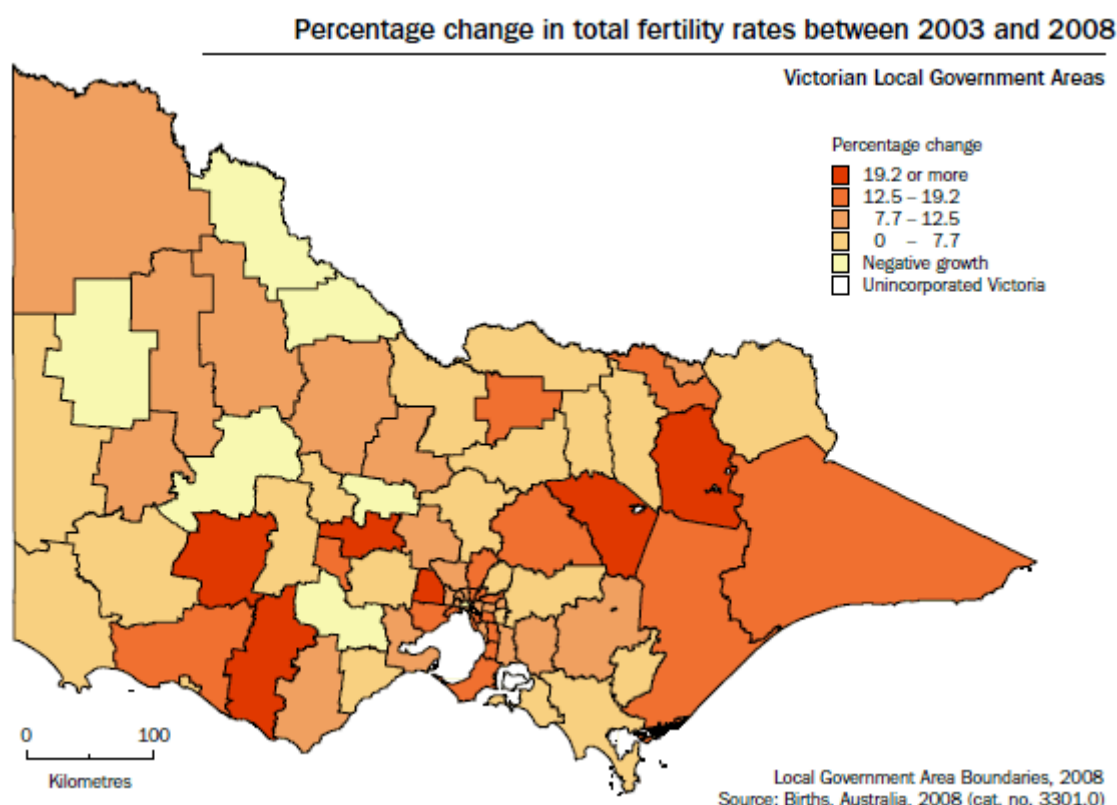
Although the total fertility rate for Victoria overall has increased in recent years, there have

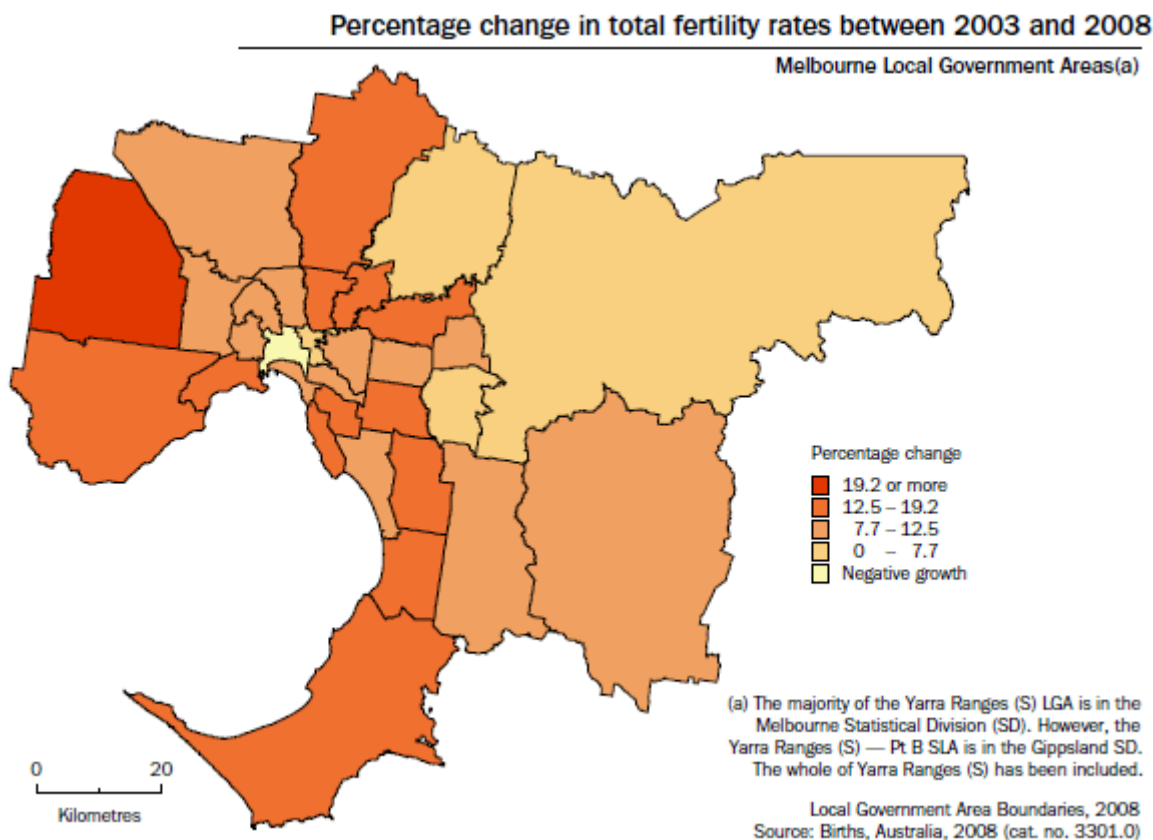
been significant differences in the rate of change between Local Government Areas (LGAs) across the state. Total fertility rates are presented below for LGAs as average rates over the three years ending in the reference year. For example, a reference to 2008 relates to the three-year period 2006-2008.

The largest increase in the total fertility rate (36.5%) was observed in Alpine, from 1.70 babies per woman in 2003 to 2.23 babies per woman in 2008. In contrast, in Queenscliffe the total fertility rate dropped by 14.3% between 2003 and 2008, from 1.61 babies per woman in 2003 to 1.38 babies per woman in 2008. This was the largest decrease among all LGAs.

Focusing on LGAs in the Melbourne Statistical Division (SD), the largest increases in the total fertility rate between 2003 and 2008 were observed in Melton (19.3%), Monash (17.0%) and Banyule (16.9%). Melbourne LGA had Victoria's lowest total fertility rate in 2008 (1.06 babies per woman), and was the only LGA in the Melbourne SD to record a decrease in the total fertility rate when comparing 2003 and 2008 (down from 1.07 babies). The slight decrease between these two periods reflects a decline in Melbourne LGA's total fertility rate to 0.96 in 2005 followed by subsequent increases to 2008, but not to the level observed in 2003.

Further commentary comparing fertility rates and other characteristics of births between the states and territories can be found in **Births, Australia** (cat. no. 3301.0) (Contents, Summary of findings, STATE AND TERRITORY). Summary data on births in Victoria and its regions can be found on the Downloads page of the same publication (Tables 1-4).





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Recent trends in Victorian death rates

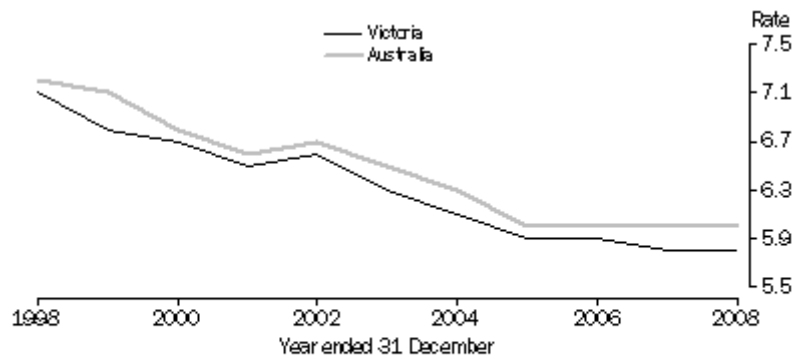
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RECENT TRENDS IN VICTORIAN DEATH RATES

Standardised death rates (SDRs) enable the comparison of death rates between populations with different age structures by relating them to a standard population. A direct method is used when the populations under study are large and the age-specific rates are reliable, while an indirect method is used when the populations under study are small and the age-specific death rates are unreliable or not known. SDRs are calculated using the 2001 total population of Australia as the standard population.

There were 35,500 deaths registered in Victoria in 2008, compared with 32,900 deaths in 2003, an increase of 7.8%. Victoria had a SDR of 5.8 deaths per 1,000 standard population in 2008, which was the same as in 2007, but down from 6.3 deaths per 1,000 standard population in 2003. Between 2003 and 2008, the SDR decreased by 7.9%. Over the period, Victoria consistently recorded a lower SDR than Australia.

Standardised death rate(a)



(a) Deaths per 1,000 standard population. Standardised death rates are calculated using the 2001 total population of Australia as the standard population.

Source: *Deaths, Australia* (cat. no. 3302.0).

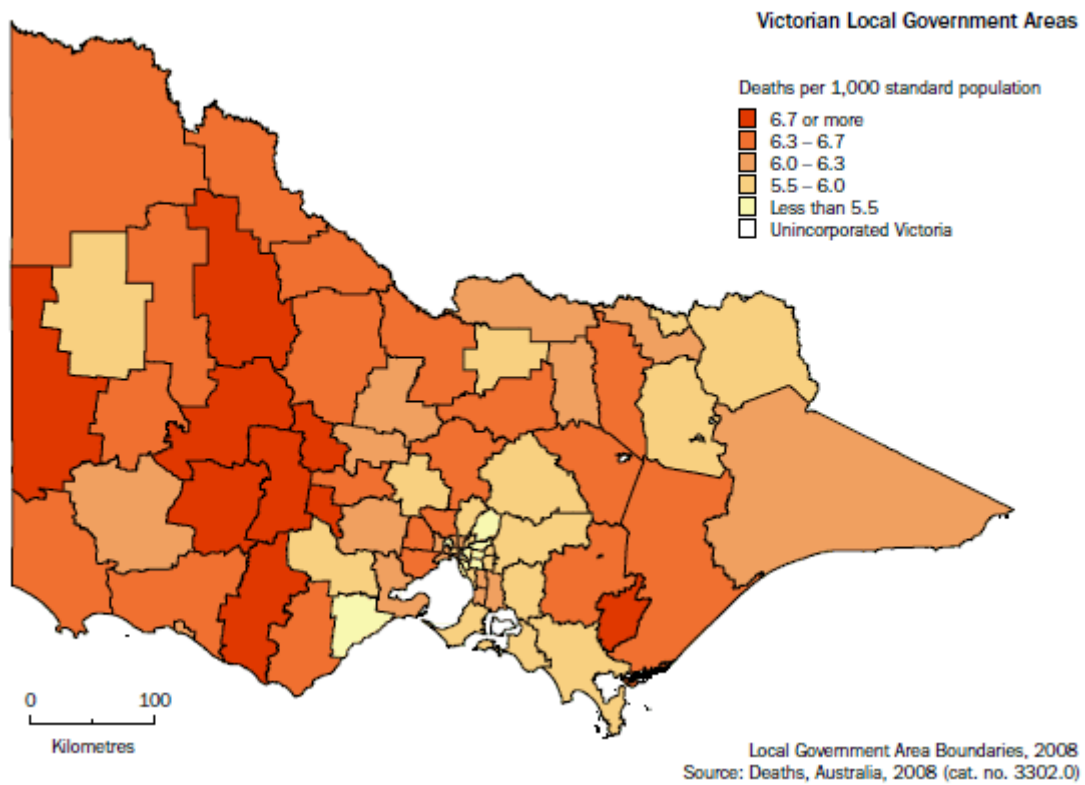
Although the SDR for Victoria has decreased overall in recent years, there have been significant differences in the rate of change in indirect standardised death rates (ISDRs) between LGAs across the state. Death rates are presented below for LGAs as average ISDRs calculated using data for the three years ending in the reference year. For example, a reference to 2008 relates to the three-year period 2006-2008.

Queenscliffe had the largest decrease in death rate of 39.7% between 2003 and 2008. Conversely, the largest increase was observed in Mansfield (20.0%) over the same period. In the Melbourne SD, the LGA of Nillumbik had the largest increase in ISDR of 10.4% between 2003 and 2008, followed by Casey (6.9%). On the other hand, the largest decrease in ISDR over the same period was observed in Yarra (22.9%), followed by Melbourne (17.9%) and Port Phillip (16.4%).

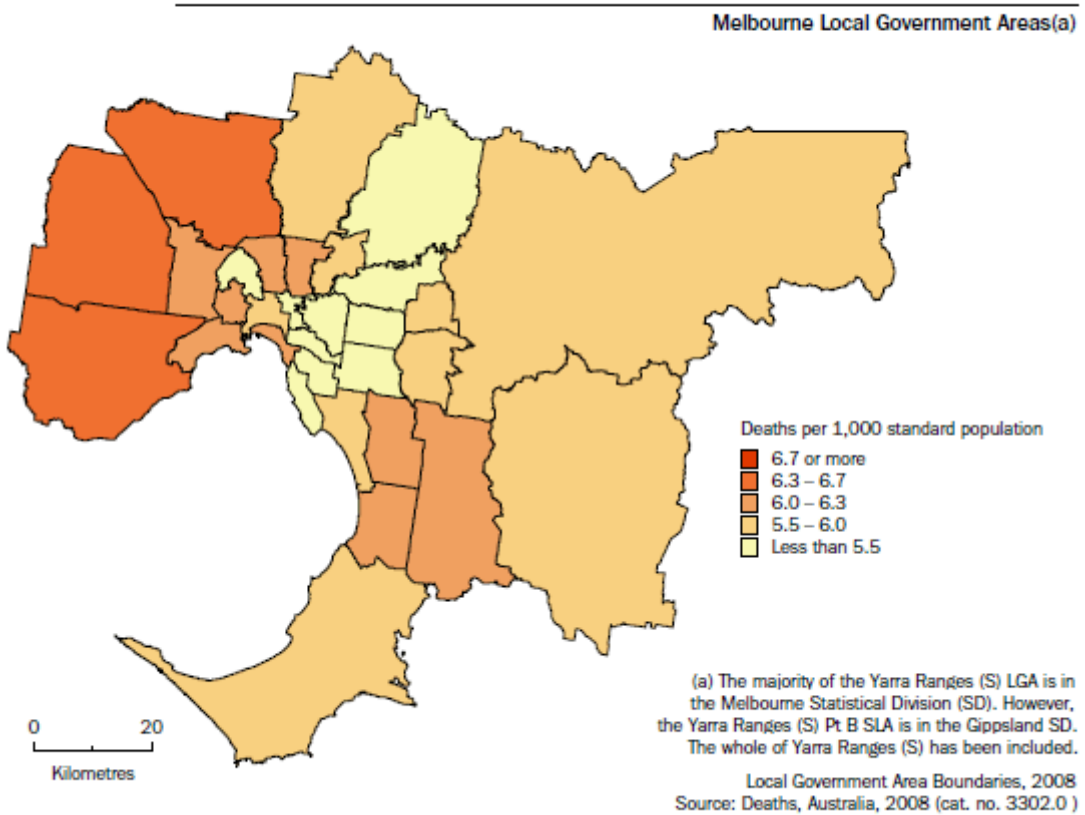
In 2008, the highest death rates among LGAs in Victoria were recorded in Pyrenees (7.6), Ararat and Central Goldfields (both 7.1). Melton (6.6) had the highest death rate in the Melbourne SD. Across Victoria, the lowest rates were recorded in Queenscliffe (4.7), Manningham (4.9) and Surf Coast (5.5).

Further commentary comparing death rates between the states and territories can be found in **Deaths, Australia** (cat. no. 3302.0) (Contents, Summary of findings, DEATH RATES STEADY). Summary data on deaths and life expectancy in Victoria and its regions can be found on the Downloads page of the same publication (Tables 1-6).

Indirect standardised death rates, 2008



Indirect standardised death rates, 2008



Australian Historical Population Statistics

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AUSTRALIAN HISTORICAL POPULATION STATISTICS

A wide range of demographic data is available in spreadsheet format (Microsoft Excel) in **Australian Historical Population Statistics** (cat. no. 3105.0.65.001). Where possible, data are available for each state and territory back to the beginnings of European settlement. The product is updated periodically, and more up-to-date information may be available from the source products stated at the bottom of each spreadsheet.

The following topics are covered by the spreadsheets:

- Population size and growth
- Indigenous population
- Population distribution
- Population age-sex structure
- Births
- Deaths
- Life tables
- Migration
- Country of birth
- Overseas arrivals and departures
- Marriages
- Divorces
- Marital status

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Labour Force Survey sample size

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LABOUR FORCE SURVEY SAMPLE SIZE

The reinstatement of the full Labour Force Survey (LFS) sample is now complete. The sample was reintroduced over a four month period, commencing in September 2009.

Detailed information about the sample reinstatement is available in [**Information Paper: Labour Force Survey Sample Design, Nov 2007 \(Third Edition\)**](#) (cat. no. 6269.0).

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Labour Force Survey Standard Products and Data Item Guide

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LABOUR FORCE SURVEY STANDARD PRODUCTS AND DATA ITEM GUIDE

In December 2009, the ABS released [**Labour Force Survey Standard Products and Data Item Guide**](#) (cat. no. 6103.0). This product itemises and cross references all data contained within the LFS standard products (including geographic data items), with an explanation of each data item, including relevant formats, and product location.

The LFS standard products are:

- [**Labour Force, Australia**](#) (cat. no. 6202.0)
- [**Labour Force, Australia, Detailed - Electronic Delivery**](#) (cat. no. 6291.0.55.001)
- [**Labour Force, Australia, Detailed, Quarterly**](#) (cat. no. 6291.0.55.003)
- [**Labour Force, Australia: Labour Force Status and Other Characteristics of Families**](#) (cat. no. 6224.0.55.001)

Statistical significance of movements and other comparisons

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STATISTICAL SIGNIFICANCE OF MOVEMENTS AND OTHER COMPARISONS

As the estimates are based on a sample survey, published estimates and the movements derived from them are subject to sampling variability. This chapter includes commentary on movements in estimates between different time periods, as well as other comparisons between categories or geographic regions. Testing of statistical significance has not been undertaken, therefore some of the commentary may refer to movements or comparisons which are not statistically significant. Standard errors for estimates in the Labour Force Survey can be calculated by using the spreadsheet contained in [Labour Force Survey, Standard Errors, Data Cube](#) (cat. no. 6298.0.55.001).

Civilian labour force by Region

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CIVILIAN LABOUR FORCE BY REGION

Based on original estimates, the Victorian labour force increased by 96,300 people (3.4%) between December 2008 and December 2009. During this period, both the number of employed and unemployed people increased - by 77,500 (2.9%) and 18,800 (14.2%) respectively. The number of people employed full-time and part-time increased by 33,700 (1.8%) and by 43,800 (5.4%) respectively. The Victorian unemployment rate increased from 4.7% to 5.2% over the same period.

In the Melbourne Major Statistical Region (MSR), there was an increase in both employment (50,500) and unemployment (19,100), resulting in the labour force growing by 69,600 people (3.3%). However, in the Balance of Victoria MSR, an increase of 27,100 in employment was offset by a slight decrease in unemployment (300). Over the year, the number of unemployed people in the Melbourne MSR increased by 20.4%, while a decrease of 0.8% was recorded in the Balance of Victoria MSR.

The labour force participation rate increased from 66.1% to 66.8% in the Melbourne MSR and from 62.1% to 63.4% in the Balance of Victoria MSR.

The proportion of employed people who worked full-time decreased from 71.1% to 70.3% in the Melbourne MSR and from 66.4% to 65.9% in the Balance of Victoria MSR.

Within the Balance of Victoria MSR, the Goulburn-Ovens-Murray Statistical Region (SR) (21,600) recorded the largest increase in employment, followed by the Barwon-Western District SR (4,200) and the Central Highlands-Wimmera SR (2,600), with falls in employment recorded in the Loddon-Mallee SR (-1,100) and the All Gippsland SR (-200).

View underlying table as an Excel spreadsheet: [1367.2 Civilian labour force, By Statistical Region \(file size 73kB\)](#).

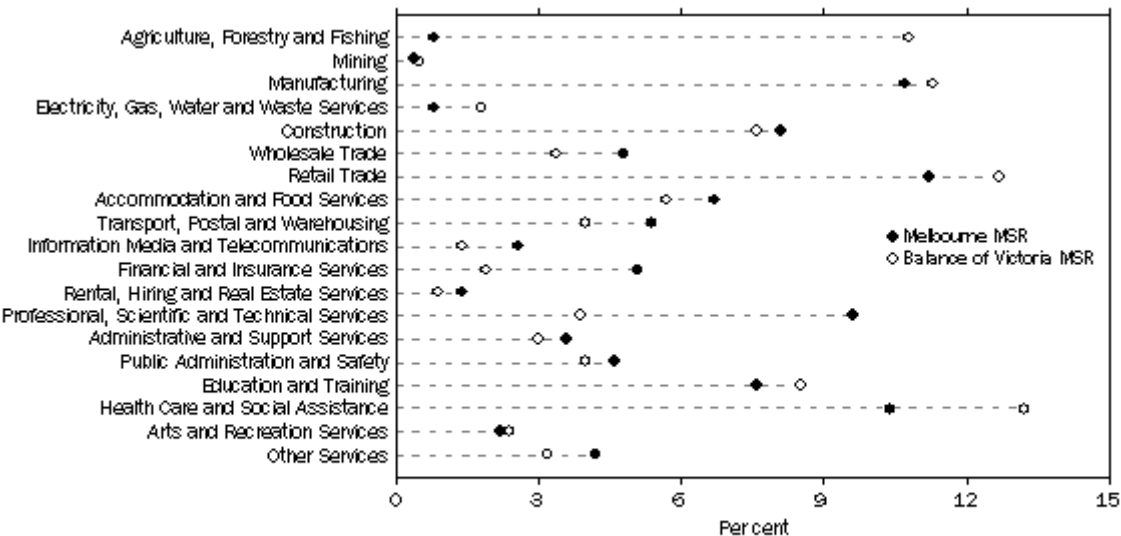
Employed persons by Industry

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EMPLOYED PERSONS BY INDUSTRY

In November quarter 2009, the largest proportion of people employed in the Melbourne MSR were in Retail Trade (11.2%), followed by Manufacturing (10.7%) and Health Care and Social Assistance (10.4%), while in the Balance of Victoria MSR the largest proportions of people were employed in Health Care and Social Assistance (13.2%), Retail Trade (12.7%), Manufacturing (11.3%) and Agriculture, Forestry and Fishing (10.8%).

Employed persons(a), By Industry(b) and Major Statistical Region - November quarter 2009



(a) Civilian population aged 15 years and over.
(b) Data provided on ANZSIC06 basis.

In Victoria, Construction (87.7%) and Mining (86.8%) recorded the highest proportions of total males employed, while the highest proportions of total females employed were in Health Care and Social Assistance (79.3%) and Education and Training (68.1%) in November quarter 2009.

In terms of full-time employment, Construction accounted for the highest proportion of males employed in Victoria (92.8%), and Health Care and Social Assistance accounted for the highest proportion of full-time females employed (70.5%).

The largest proportion of male part-time workers were employed in Construction (58.9%). Health Care and Social Assistance employed the largest proportion of part-time females (90.0%).

View underlying table as an Excel spreadsheet: [1367.2 Employed persons, By Industry and Major Statistical Region - November quarter 2009 \(file size 64kB\)](#).

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Employed persons by Occupation

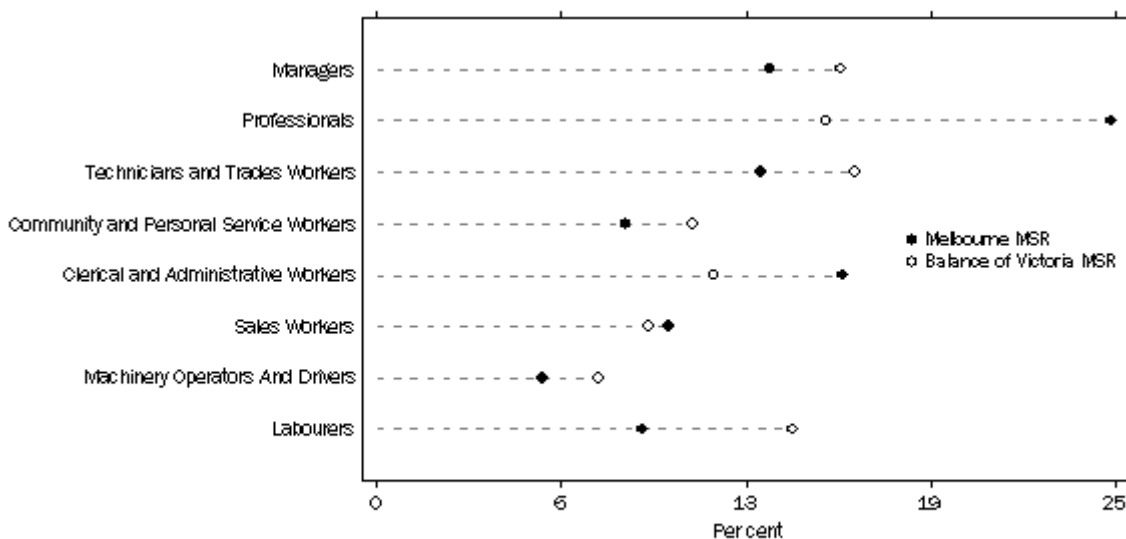
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EMPLOYED PERSONS BY OCCUPATION

In November quarter 2009, in the Melbourne MSR, almost a quarter of people were employed as Professionals (24.9%), with Clerical and Administrative Workers (15.8%), Managers (13.3%) and Technicians and Trades Workers (13.0%) being the next largest groups. In the Balance of Victoria MSR, the highest proportion of people were employed as Technicians and Trades Workers (16.2%), followed by Managers (15.7%) and Professionals (15.2%).

Full-time workers in Victoria worked mainly as Professionals (24.6%), Managers (17.9%) and Technicians and Trades Workers (17.1%), while part-time workers were mainly Sales Workers (18.5%), Professionals (17.8%) and Clerical and Administrative Workers (17.0%).

Employed persons(a), By Occupation(b) and Major Statistical Region - November quarter 2009



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Part-time workers

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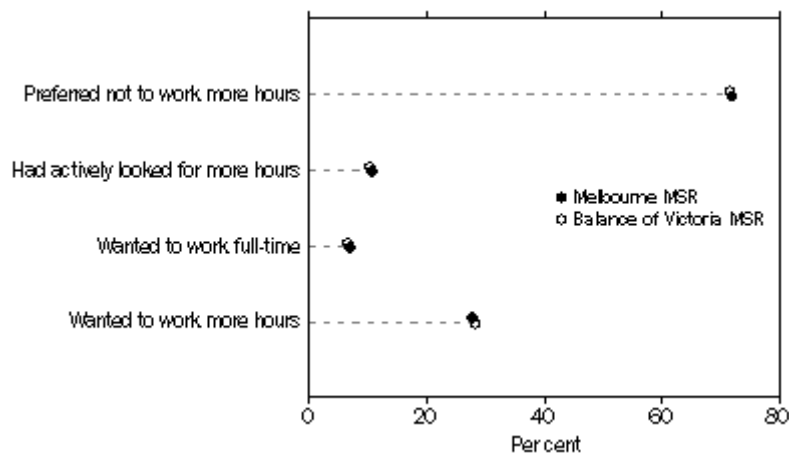
PART-TIME WORKERS

In November quarter 2009, there were 612,000 part-time workers in the Melbourne MSR. From November quarter 2008 to November quarter 2009, total part-time workers increased by 46,400 (8.2%) in the Melbourne MSR.

In November quarter 2009, females accounted for the majority of part-time workers (68.1%) in the Melbourne MSR. The majority of part-time workers (72.0%) preferred not to work additional hours, and this was a more common preference amongst females (75.2%) than males (65.1%).

In the Balance of Victoria MSR, the total number of part-time workers in November quarter 2009 was 223,100, a decrease of 6,400 (2.8%) since November quarter 2008. The majority of these part-time workers (71.6%) preferred not to work more hours.

Part-time workers, By Preference for more hours and Major Statistical Region - November quarter 2009



View underlying table as an Excel spreadsheet: [1367.2 Part time workers, By Preference for more hours, Sex and Major Statistical Region \(file size 24kB\)](#).

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Duration of unemployment

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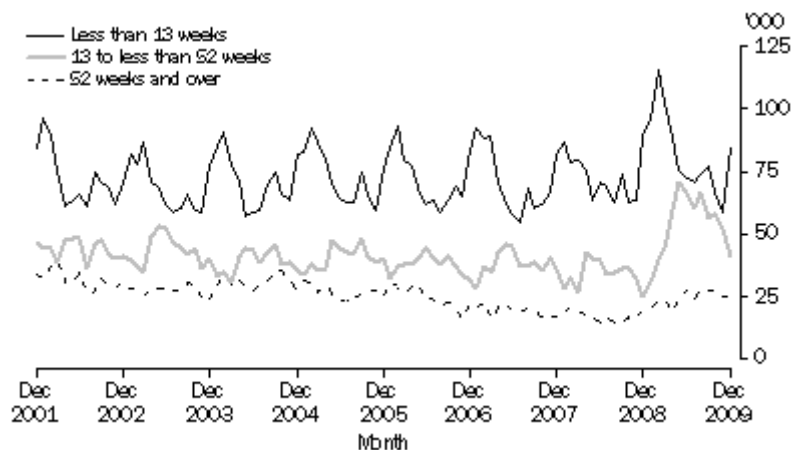
DURATION OF UNEMPLOYMENT

Between December 2008 and December 2009, the number of people classified as short-term unemployed (less than 13 weeks) decreased by 0.3% or 200 people in the Melbourne MSR and by 3.7% or 15,600 people in the Balance of Victoria MSR.

Over the same period, the number of people in the Melbourne MSR classified as medium-term unemployed (13 to less than 52 weeks) more than doubled (109.7% or 16,900 people), while the number decreased by 8.2% or 800 people in the Balance of Victoria MSR.

The number of people classified as long-term unemployed (52 weeks or more) increased by 18.5% or 2,400 people in the Melbourne MSR. For the Balance of Victoria MSR, the number of long-term unemployed increased by 82.4% or 4,200 people.

Unemployed persons, By Duration of unemployment - Victoria



View underlying table as an Excel spreadsheet: [1367.2 Unemployed persons, By Duration of unemployment, Sex and Major Statistical Region \(file size 56kB\)](#).

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Small area unemployment rate estimates

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SMALL AREA UNEMPLOYMENT RATE ESTIMATES

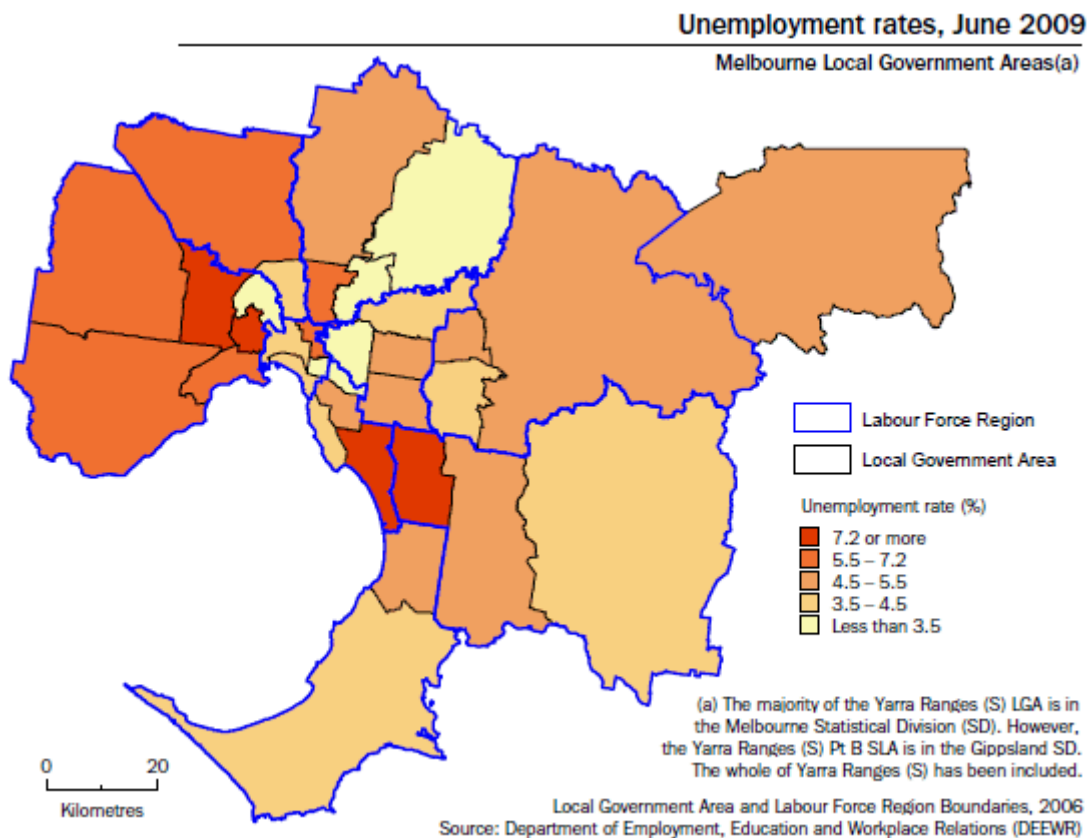
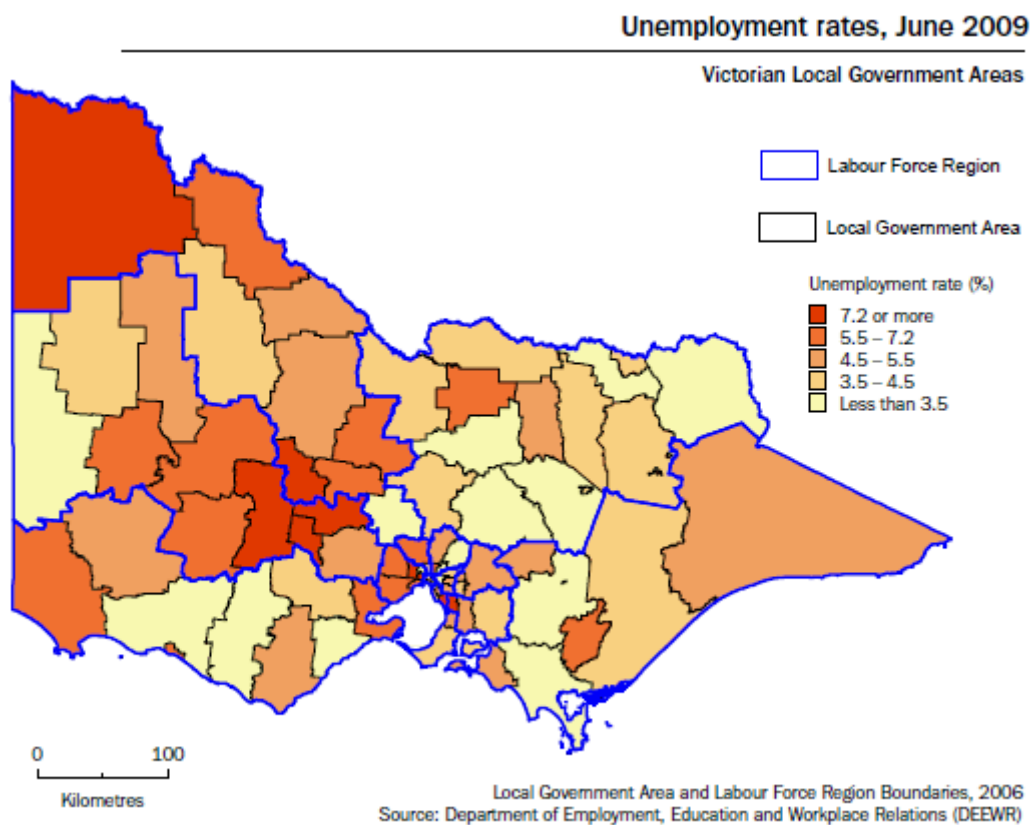
The Australian Government Department of Education, Employment and Workplace Relations (DEEWR) produce unemployment rate estimates at Statistical Local Area (SLA) level, using information derived from the ABS Labour Force Survey (LFS), supplemented by small area data from the ABS Census of Population and Housing and Centrelink.

DEEWR has made the transition to the geographic classification and population benchmarks now used in the LFS (based on the 2006 Census of Population and Housing) from those used previously (based on the 2001 Census). Unemployment estimates for SLAs and aggregates thereof for periods prior to March quarter 2008 are based on 2001 Census-based population benchmarks. For most areas, there has been no impact from the change in geographic classification. Further details can be found in paragraphs 12-15 of the [Explanatory Notes](#).

The series presented in the commentary below and in the underlying table is the DEEWR 'smoothed series'. The quarterly estimates have been smoothed using a four-quarter average ending in the reference quarter. Therefore, the reference period refers to an average over the year ended the last month of the reference quarter (for example, June quarter 2009 refers to the average of the four quarters from September quarter 2008 to June quarter 2009, or the average over the year ended June 2009).

In June quarter 2009, the highest unemployment rates were recorded in the LGAs of Central Goldfields (9.7%), Greater Dandenong (8.8%) and Brimbank (8.5%), while the lowest unemployment rates were recorded in Nillumbik (1.7%), South Gippsland (2.6%) and

Macedon Ranges (2.8%). In June quarter 2009, 59.5% of Victorian LGAs recorded an unemployment rate of less than or equal to 5.0%.



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Average weekly earnings

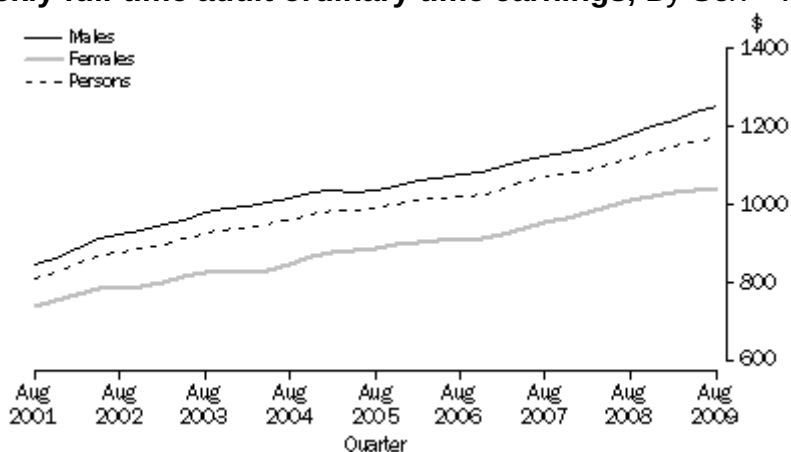
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AVERAGE WEEKLY EARNINGS

A sample redesign based on **Australian and New Zealand Standard Industrial Classification, 2006** (ANZSIC06) (cat. no. 1292.0) was introduced into the Average Weekly Earnings (AWE) survey in August 2009, along with some improvements to the survey frame. These changes have resulted in a shift in the level of the series. The difference in the level of the two series (ANZSIC06 and ANZSIC93) has been measured and backcast into the historical series to make a time series of estimates on an ANZSIC06 basis. Because of the extent of changes in level estimates, quarterly and annual percentage change movements for the new ANZSIC06 series are not identical to those under the old ANZSIC93 series. Differences at the state, sector and Australia levels are generally insignificant and within current released standard errors for each series.

In August quarter 2009, the trend estimate of average weekly full-time adult ordinary time earnings in Victoria was \$1,172.60, an increase of 4.7% from August quarter 2008. Over the same period, trend full-time adult ordinary time earnings increased by 6.2% for males and by 2.8% for females.

Average weekly full-time adult ordinary time earnings, By Sex - Victoria: Trend



View underlying table as an Excel spreadsheet: [1367.2 Average weekly earnings of employees, By Sex - Victoria: All series \(file size 25kB\).](#)

Small area estimates of personal income

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SMALL AREA ESTIMATES OF PERSONAL INCOME

Estimates at small area level (including SLAs and LGAs) of the personal income people received from various sources for each year from 2003-04 to 2006-07 have recently been compiled by the ABS from aggregate data sourced from the Australian Taxation Office's (ATO) Individual Income Tax Return Database. The ATO database covers all individuals who submit an individual income tax return and includes persons with income from one or more of a range of sources such as wages and salaries, own business, superannuation and annuity, investments and government pensions, benefits or allowances. The data items compiled by the ABS using the ATO statistics relate to income standards the ABS uses for its income surveys and are defined in the Explanatory Notes of **Estimates of Personal Income for Small Areas, Time Series, 2003-04 to 2006-07** (cat. no. 6524.0.55.002). Government pensions, benefits or allowances have been excluded from the scope of the ABS-compiled statistics. Downloadable data can be accessed from the Downloads page of the same publication.

Between 2003-04 and 2006-07, the total personal income of Victorians grew at an average annual rate of 7.2%, with those living in the Melbourne MSR (7.6%) recording a higher average annual growth rate than those living in the Balance of Victoria MSR (5.9%). Across Australia, personal income grew at an average annual rate of 8.2%.

Among LGAs in Victoria, the highest average annual growth rate in total personal income between 2003-04 and 2006-07 was observed in the Melbourne LGA (15.7%), followed by Wyndham (11.7%) and Melton (10.3%), while the lowest positive average annual rates of growth were observed in Loddon (1.4%), Ararat (2.1%) and Horsham (2.4%). Greater Dandenong (5.1%) recorded the lowest average annual growth rate in the Melbourne MSR. Over the period, negative average annual growth rates were observed in some LGAs in the Wimmera and Mallee: West Wimmera (-11.2%), Hindmarsh (-8.7%), Yarriambiack (-5.6%) and Buloke (-2.4%). Conversely, Surf Coast (9.7%) had the highest average annual growth rate among LGAs in the Balance of Victoria MSR.

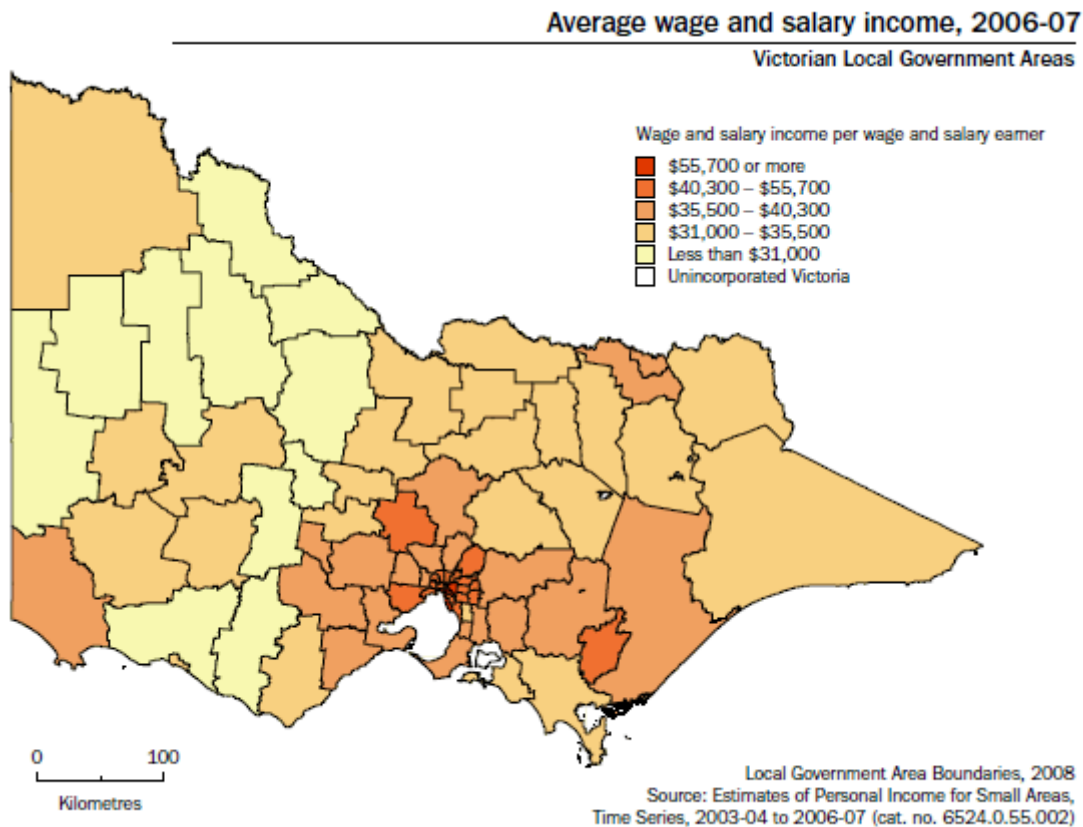
Although the total personal income of Victorians from all sources grew between 2003-04 and 2006-07, each income source grew at a different rate. Superannuation and annuity income (average annual growth rate of 14.7%) and investment income (14.6%) showed the fastest rates of growth, while wage and salary income (6.2%) and own unincorporated business income (2.7%) grew at slower rates. As a result of these differing rates of growth, the share of total personal income sourced from wages and salaries decreased from 80.1% to 77.8%, and that from own unincorporated businesses decreased from 6.6% to 5.8%. Conversely, income from investments increased from 9.9% to 12.1%, and income from superannuation and annuities increased from 2.8% to 3.4%.

The amount of personal income earned in aggregate will be influenced by the number of income earners, which in turn will be affected by factors such as regional population growth and economic activity. In Victoria between 2003-04 and 2006-07, the number of wage and salary earners increased at an average annual rate of 2.3%. While total wage and salary income grew at an average annual rate of 6.2% over the period, average wage and salary

income per wage and salary income earner grew at a slower average annual rate of 3.8%. Corresponding to the fastest growth in total personal income, the LGAs of Melbourne, Wyndham and Melton had the fastest growth in the number of wage and salary earners.

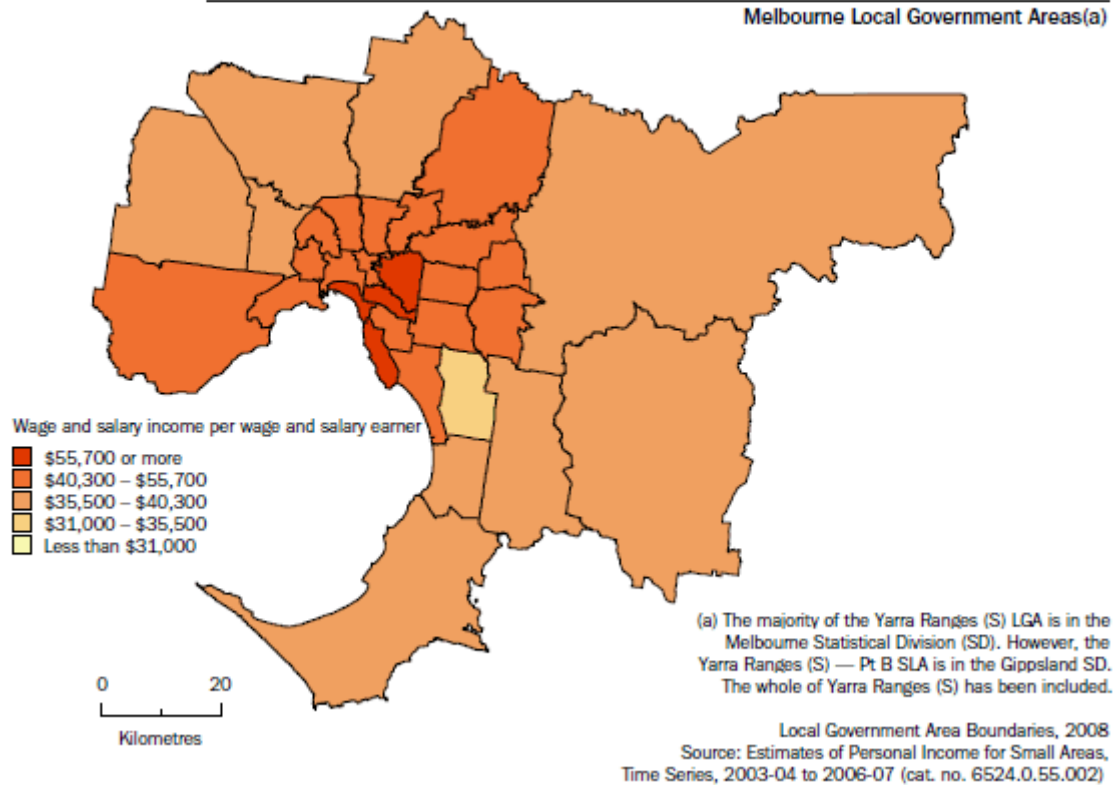
In 2006-07, there were more than 2.3 million wage and salary earners in Victoria, who earned a total of \$95.3 billion in wages and salaries, giving an average wage and salary income of \$41,260 per wage and salary earner. LGAs in the inner eastern and southern areas of Melbourne had the highest average wage and salary incomes, with the highest being Bayside (\$60,138), Stonnington (\$59,693) and Boroondara (\$56,422). Conversely, LGAs with the lowest average wage and salary incomes were located in rural areas in the west of the state, with the lowest being Buloke (\$26,813), Yarriambiack (\$27,321) and West Wimmera (\$27,930).

Between 2003-04 and 2006-07, all LGAs in Victoria recorded an average annual growth rate of more than 2.0% in average wage and salary income, with the fastest growth being in Glenelg (average annual growth rate of 5.2%), Towong and Corangamite (both 4.9%).



Average wage and salary income, 2006-07

Melbourne Local Government Areas(a)



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State Final Demand

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Value	Change
3,000.62	30.9%
2,649.71	33.3%
807.50	2.3%
10,744.54	96%
107.80	5%

STATE FINAL DEMAND

This section contains the following subsection :

- Introduction of new standards and classifications
- State final demand

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Introduction of new standards and classifications

INTRODUCTION OF NEW STANDARDS AND CLASSIFICATIONS

September quarter 2009 saw the introduction of new international standards and new industry and sector classifications into the quarterly Australian National Accounts. These changes have resulted in revisions to the entire national accounts time series. The standards and classifications introduced are:

- **System of National Accounts 2008 (SNA08),**
- **Balance of Payments and International Investment Position Manual, sixth edition (BPM6),**
- **Australian and New Zealand Standard Industrial Classification, 2006 (ANZSIC06)** (cat. no. 1292.0), and
- **Standard Economic Sector Classifications of Australia, 2008 (SESCA08)** (cat. no. 1218.0).

The changes being implemented have impacted on the value of some key aggregates, and data quality improvements have also resulted in a shift in the level of some series. Level shifts have been backcast to the start of the respective time series.

Changes have been made to components of private gross fixed capital formation:

- 'Cultivated biological resources' replaces the previously published 'Livestock', and includes a new component of 'Orchard growth'; and
- 'Intellectual property products' replaces the previously published 'Intangible fixed assets', and includes a new component of 'Research and development'.

Further information and discussion on the introduction of these new standards and classifications can be found in **Information Paper: Implementation of new international standards in ABS National and International Accounts, September 2009** (cat. no. 5310.0.55.002).

A revised **Australian National Accounts: Concepts, Sources and Methods** (cat. no. 5216.0) is scheduled for release in late 2010. This product describes the underlying concepts and structure of the national accounts, and the sources, methods and terms used in compiling the estimates. However, the current (2000) version reflects SNA93 concepts and a number of references to data sources and methods will now be out of date.

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State final demand

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STATE FINAL DEMAND

State final demand is the estimate obtained by summing government final consumption expenditure, household final consumption expenditure, private gross fixed capital formation and the gross fixed capital formation of public corporations and general government.

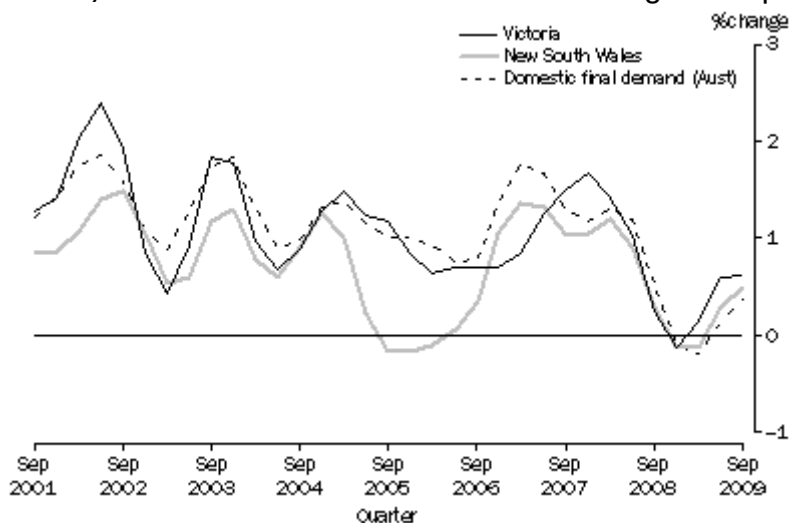
In September quarter 2009, the trend estimate for Victorian final demand, in volume terms, was \$74,165 million, an increase of 0.6% from June quarter 2009. This was above the trend growth for New South Wales (0.5%) and Australian domestic final demand (0.4%) over the same period.

Household final consumption expenditure is the largest component of state final demand, and accounted for 57.9% of the trend volume estimate of state final demand in September quarter 2009. The trend volume estimate of household final consumption expenditure increased by 1.0% from June quarter 2009. The other main contributors to trend state final demand in September quarter 2009 were private gross fixed capital formation (22.8%) and government final consumption expenditure (16.0%).

View underlying table as an Excel spreadsheet: [1367.2 State final demand, Victoria, Chain volume measures: Seasonally adjusted and trend \(file size 24kB\)](#).

View underlying table as an Excel spreadsheet: [1367.2 State final demand, Victoria: Original \(file size 27kB\)](#).

State final demand, Chain volume measure: Trend - Change from previous quarter

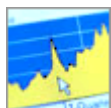


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PRICE INDEXES

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Consumer price index

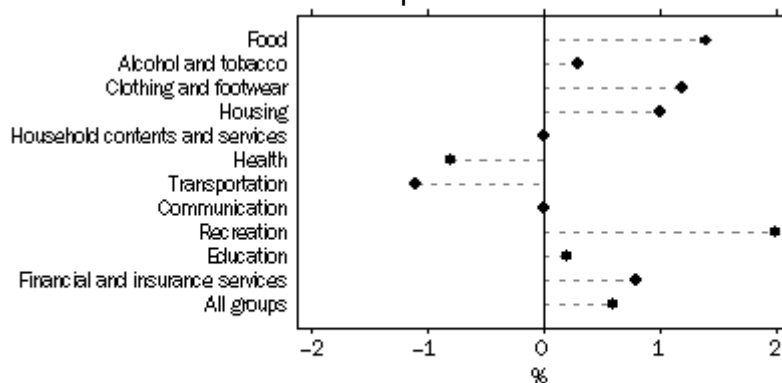
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CONSUMER PRICE INDEX

Between September quarter 2009 and December quarter 2009, the All groups CPI for Melbourne increased by 0.6%. The groups which recorded the largest increases were: Recreation (2.0%), Food (1.4%) and Clothing and footwear (1.2%). The groups which recorded decreases were: Transportation (-1.1%) and Health (-0.8%).

Between December quarter 2008 and December quarter 2009, the All groups CPI for Melbourne rose by 1.8%. The CPI All groups weighted average for the eight capital cities rose by 2.1% over the same period. The biggest annual increases for Melbourne were recorded in Housing (6.2%), Education (5.4%), Health (4.5%) and Household contents and services (3.5%). The only group which recorded a decrease for the year was Financial and insurance services (-8.5%).

Change in consumer price index, By Group - Melbourne - September quarter 2009 to December quarter 2009



View underlying table as an Excel spreadsheet: [1367.2 Consumer price index, By Group, Melbourne and Weighted average of eight capital cities \(file size 24kB\)](#).

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HOUSE PRICE INDEXES

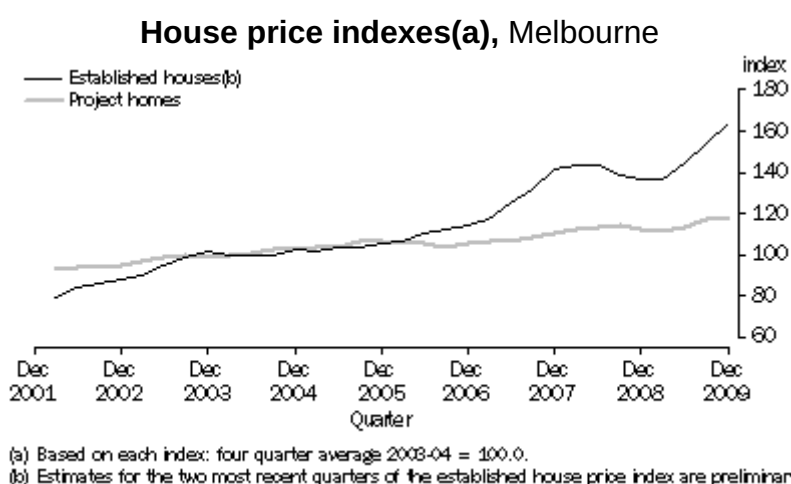
The price index for established houses covers transactions in detached residential dwellings on their own block of land regardless of age (i.e. includes new houses sold as a house/land package as well as second-hand houses). Price changes therefore relate to changes in the total price of dwelling and land.

Project homes are dwellings available for construction on an existing block of land. Price changes relate only to the cost of constructing the dwelling (excluding land).

A detailed description of the concepts, sources and methods behind the established house price index can be found in **House Price Indexes: Concepts, Sources and Methods, Australia** (cat. no. 6464.0). This publication was re-released in December 2009, and covers the changes made in the stratification method and weights as a result of a review of the established house price index in 2007 and 2008, as well as more information on how the index is calculated and on price index concepts in general.

In December quarter 2009, the price index of project homes in Melbourne increased by 0.9% from the previous quarter. Based on preliminary estimates, the price index of established houses increased by 6.8% over the same period. Preliminary estimates of the weighted average of the eight capital cities showed an increase of 5.2% in established house prices and an increase of 0.6% in project home prices in December quarter 2009.

From December quarter 2008 to December quarter 2009, established house prices in Melbourne increased by 19.7% and project home prices increased by 5.2%.



View underlying table as an Excel spreadsheet: [1367.2 House price indexes, Melbourne and Weighted average of eight capital cities \(file size 27kB\)](#).

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CONSTRUCTION

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Building approvals

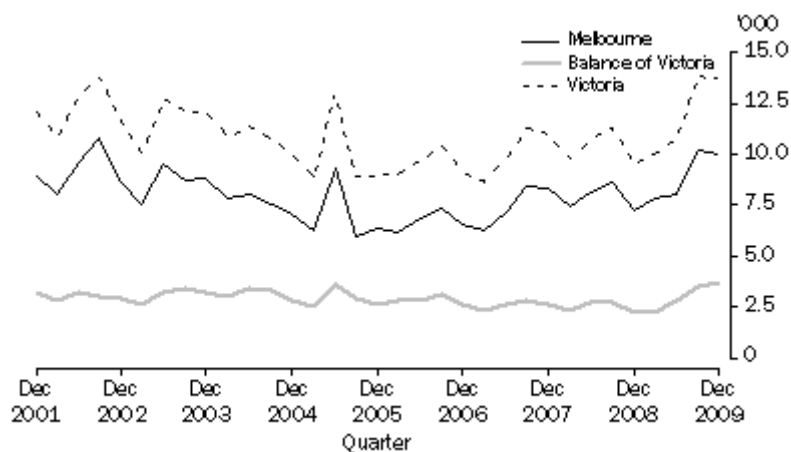
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BUILDING APPROVALS

In December quarter 2009, there were 13,743 new dwelling units approved in Victoria, of which 72.8% were in the Melbourne MSR. There were 60 less dwelling unit approvals (-0.4%) in Victoria than in the previous quarter, but 4,240 (44.6%) more than in December quarter 2008. The number of dwelling units approved in the Melbourne MSR decreased by 2.4% compared with the previous quarter but increased by 37.5% compared with December quarter 2008. In the Balance of Victoria MSR there was an increase of 5.1% over the previous quarter and an increase of 68.0% over the December quarter 2008.

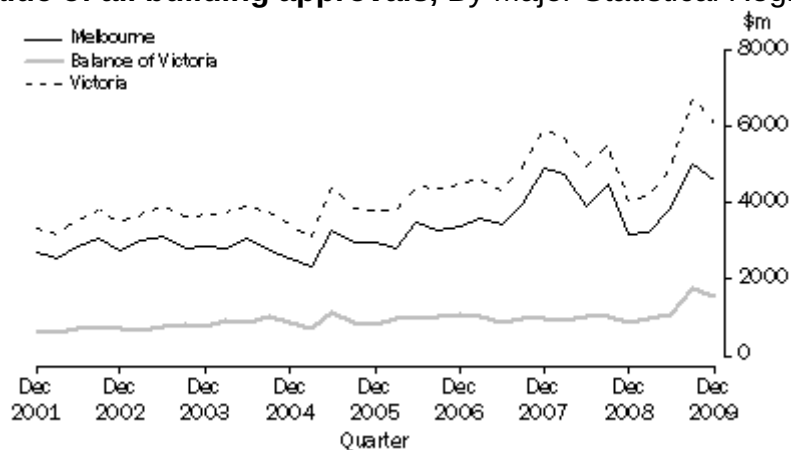
More than one quarter (29.7%) of the dwelling unit approvals in the Melbourne MSR in December quarter 2009 were in three LGAs - Wyndham (1,319), Whittlesea (950) and Casey (704). In the Balance of Victoria MSR, the LGAs with the highest number of dwelling units approved were Greater Geelong (458), Ballarat (295) and Greater Bendigo (264).

Dwelling unit approvals, By Major Statistical Region



At current prices, the total value of building approvals in Victoria in December quarter 2009 was \$6,119.2 million, a decrease of \$653.7 million (-9.7%) over September quarter 2009, but an increase of \$2,051.6 million (50.4%) compared with December quarter 2008.

Value of all building approvals, By Major Statistical Region



View underlying table as an Excel spreadsheet: [1367.2 Building approvals, By Local Government Area \(file size 40kB\)](#).

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Engineering construction activity

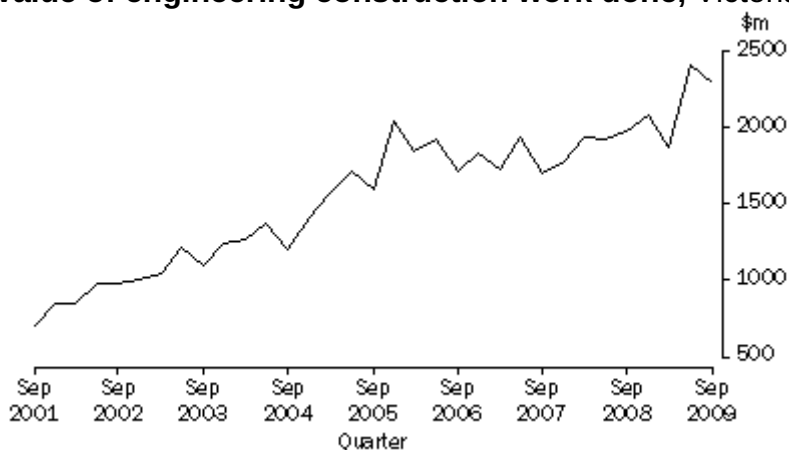
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ENGINEERING CONSTRUCTION ACTIVITY

For Victoria, the total value (at current prices) of engineering construction activity (work) done during September quarter 2009 was \$2,293.3 million, a decrease of 5.0% from June quarter 2009 and an increase of 16.2% over September quarter 2008. Work done for Electricity generation, transmission etc. and pipelines (21.0%) and for Roads, highways and

subdivisions (20.1%) each made up more than one fifth of the total value, while 14.2% was for Heavy industry.

Value of engineering construction work done, Victoria



View underlying table as an Excel spreadsheet: [1367.2 Engineering construction activity, By Type - Victoria: Original \(file size 40kB\)](#).

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TOURISM

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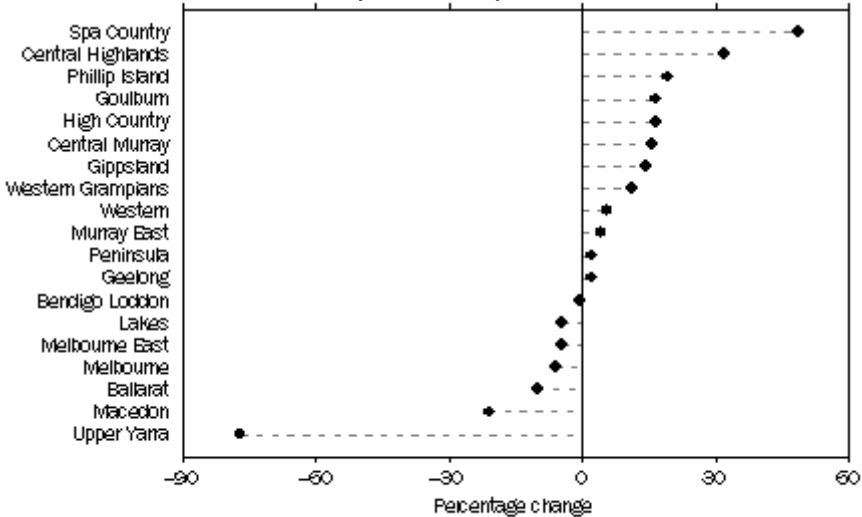
TOURIST ACCOMMODATION

In September quarter 2009, total accommodation takings for hotels, motels and serviced apartments in Victoria with 15 or more rooms were \$338.4 million, a decrease of 3.1% from September quarter 2008. The Melbourne Tourism Region accounted for the majority of Victoria's accommodation takings (75.0%).

The highest percentage growth in accommodation takings between September quarter 2008 and September quarter 2009 was recorded in the Tourism Region of Spa Country (48.6%) followed by Central Highlands (31.8%) and Phillip Island (19.1%). The largest decreases in accommodation takings were recorded in the Tourism Regions of Upper Yarra (-76.9%), Macedon (-21.0%) and Ballarat (-10.1%).

Estimates for some Tourism Regions were not available for separate publication in September quarter 2008 or September quarter 2009. Therefore, it is not possible to derive the percentage change of takings from accommodation between these two quarters. The affected Tourism Regions are Wimmera and Mallee, and hence these regions have not been included in the regional commentary above or the graph below. Total takings from accommodation in these regions increased by 10.2% between September quarter 2008 and September quarter 2009.

Change in takings from accommodation(a), By Tourism Region - September quarter 2008 to September quarter 2009



(a) Hotels, motels and serviced apartments with 15 or more rooms.

View underlying table as an Excel spreadsheet: [1367.2 Tourist accommodation, By Tourism Region - September quarter 2009 \(file size 26kB\)](#).

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Livestock slaughtering and meat production

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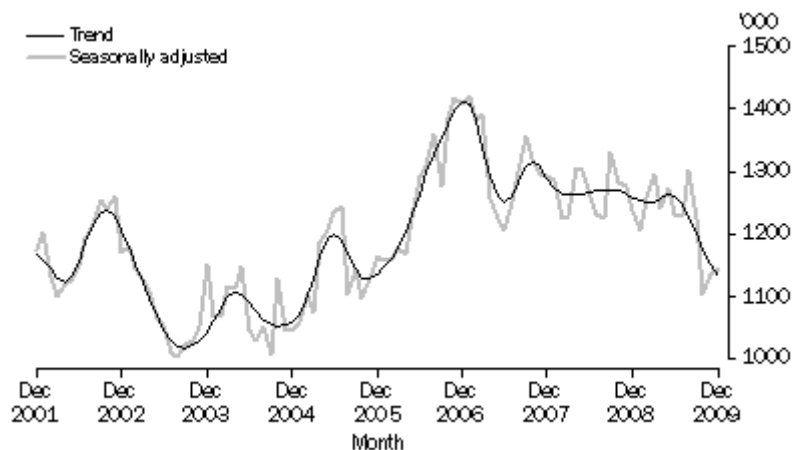
LIVESTOCK SLAUGHTERING AND MEAT PRODUCTION

Between December 2008 and December 2009, the trend estimate for total meat production for Victoria decreased by 11.6% from 59,447.1 tonnes to 52,530.2 tonnes. The production of Veal, Beef, Lamb and Pig meat decreased by 51.2%, 14.9%, 8.2% and 4.1% respectively, while an increase was recorded for Mutton (3.7%) over the same period.



The trend estimate for the number of livestock slaughtered decreased by 126,700 (10.1%) between December 2008 and December 2009. Slaughtering of Calves, Cattle, Lambs, Sheep and Pigs decreased by 36.1%, 17.5%, 10.1%, 3.1% and 1.5% respectively over this period.

Total livestock slaughtering, Victoria



View underlying table as an Excel spreadsheet: [1367.2 Livestock slaughtering and meat production, Victoria: All series \(file size 27kB\)](#).

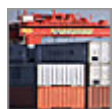
View underlying table as an Excel spreadsheet: [1367.2 Other agricultural production, Victoria \(file size 24kB\)](#).

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TRADE

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- Balance of merchandise trade
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Confidentiality of merchandise trade statistics

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CONFIDENTIALITY OF MERCHANDISE TRADE STATISTICS

The release of statistics for certain merchandise trade commodities is restricted in order to prevent the identification of the activities of an individual business, where this is requested by the business concerned. These restrictions do not affect the total value of exports and imports for Australia, but they can affect statistics at disaggregated levels, including by state.

Prior to September 2008, import commodities with confidentiality restrictions 'No commodity details' or 'No value details' contributed to the relevant state and country totals, so that these totals showed the correct level of trade. To ensure the confidentiality of data, this treatment changed in September 2008. Import commodities with these confidentiality restrictions are now excluded from all state-level data. Therefore, data on imports for Victoria may understate the actual amount of trade in Victoria, including the amount of trade with the state's major trading partners.

From December 2008, some additional commodities have had a restriction of 'No commodity details' applied, and care should be taken when interpreting the data on Machinery and transport equipment in the commodity table in this chapter.

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Balance of merchandise trade

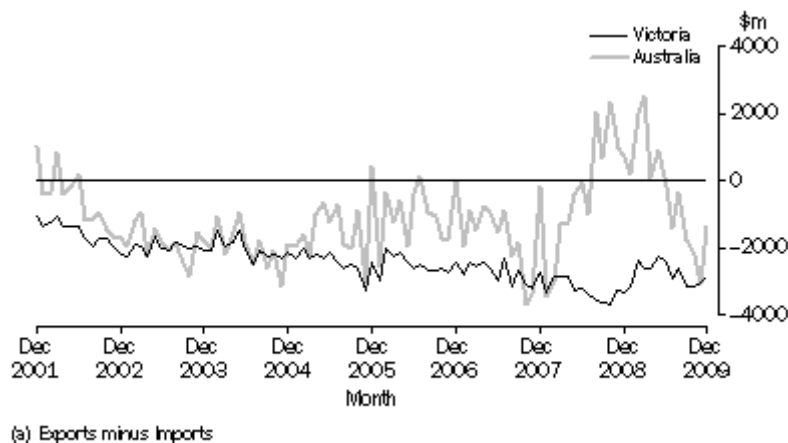
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BALANCE OF MERCHANDISE TRADE

In December 2009, the balance of international merchandise trade (i.e. the value of exports less the value of imports) for Victoria was a deficit of \$2,821m. The value of the state's merchandise exports was \$1,653m, while merchandise imports totalled \$4,474m. Compared with December 2008, Victoria's trade deficit in December 2009 was \$474m (14.4%) lower, with a decline in the value of exports (down \$256m, 13.4%) being more than offset by a larger fall in the value of imports (down \$730m, or 14.0%). Victoria recorded an average monthly trade deficit of \$2,752m for the 12 months ending December 2009.

At the national level, the value of imports and exports (including re-exports) were lower by 12.3% and 21.7%, respectively, in December 2009 compared with December 2008.

Balance of international merchandise trade(a)



In 2008-09, Victoria's trade deficit was \$36,082m, an increase of \$562m (1.6%) over the previous financial year. The state's exports decreased by \$164m (0.8%) while imports increased by \$399m (0.7%).

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Trade by Commodity

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TRADE BY COMMODITY

More than a quarter (28.9%) of Victoria's merchandise exports in 2008-09 were Food and live animals, followed by Machinery and transport equipment (19.7%). Compared with 2007-08, exports of Food and live animals rose by \$670m and Chemicals and related products rose by \$355m. The largest decrease in exports were Machinery and transport equipment (-\$791m).

Food and live animals accounted for 26.4% of Victoria's exports in December quarter 2009, while Machinery and transport equipment contributed 20.8% of the total.

Imports of Machinery and transport equipment comprised 38.4% of total Victorian imports in 2008-09, more than two times the size of the next largest category (Miscellaneous manufactured articles, 17.6%). The largest increases from 2007-08 were in Miscellaneous manufactured articles (\$1,442m) and Food and live animals (\$421m). The largest decreases were in Machinery and transport equipment (-\$1,440m) and Mineral fuels, lubricants and related materials (-\$640m).

In December quarter 2009, Machinery and transport equipment made up 40.5% of the state's imports, with a further 15.9% being Miscellaneous manufactured articles.

View underlying table as an Excel spreadsheet: [International merchandise trade, By](#)

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Major trading partners

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MAJOR TRADING PARTNERS

Based on the volume of trade with the state, Victoria's biggest trading partner in 2008-09 was China, with combined exports and imports of \$13,565m. The next biggest trading partners were the United States of America, Japan, New Zealand and Germany. With the exception of New Zealand (a trade deficit of \$629m), Victoria's largest trade deficits in 2008-09 were recorded with its biggest trading partners - China (\$9,227m), the United States of America (\$5,222m), Germany (\$3,389m) and Japan (\$3,103m). Over the same period, trade surpluses were recorded with 4 of the state's 30 major trading partners. The largest of these was with Saudi Arabia (\$1,058m), followed by the United Arab Emirates (\$507m).

The top five destinations of Victoria's exports in December quarter 2009 were China, New Zealand, Japan, the United States of America and Saudi Arabia. Combined, 46.4% of the state's exports in the quarter went to these countries. Nearly one-fifth (19.4%) of imports to Victoria came from China, with the United States of America (11.0%) and Japan (10.0%) being the next two largest sources.

View underlying table as an Excel spreadsheet: [International merchandise trade, By Major trading partner - Victoria \(file size 27kB\).](#)

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ENVIRONMENT

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AIR QUALITY

The Air Quality Index compiled by the Victorian Environment Protection Authority measures the concentration of various pollutants relative to the concentration levels at which they may cause harm. The lower the index is, the better the quality of our air. The index is available for four areas in the Port Phillip Region (East, West, City and Geelong) and the Latrobe Valley.

The Visibility Pollutant Index is an indicator of visibility reduction, and is measured by the concentration of airborne particles relative to Victorian standards. Incidents of poor visibility are generally higher during the cooler months of autumn and winter (from May to September), whereas ozone levels are generally higher during the warmer months of spring and summer (from November to February).

View underlying table as an Excel spreadsheet: [1367.2 Air quality, By Region \(file size 72 kB\)](#).

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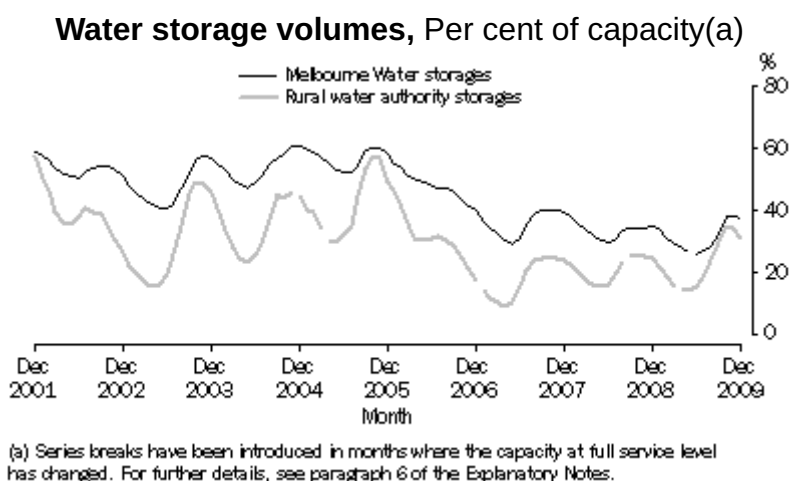
WATER RESOURCES

At the end of December 2009, Victoria's water storages were at 30.3% of their capacity at full service level of 14,020 GL. This was 2.9 percentage points lower than the level in November 2009, and 6.2 percentage points higher than in December 2008.

Melbourne's water storage level at the end of December 2009 was 37.5% of capacity. This was 0.5 percentage points lower than in November 2009 and 2.6 percentage points lower than in December 2008. Rural water storages held 31.2% of their capacity at the end of December 2009, 2.7 percentage points lower than in November 2009, and 7.0 percentage points higher than the level in December 2008.

Between December 2008 and December 2009, the volume of water held in rural water storages increased by 24.1%. Almost half (49.9%) of this increase was captured in Lake Eildon in the Goulburn basin, with a further one third (34.6%) of the increase being in Murray basin storages. Just under three-quarters (73.9%) of the storage capacity at full service level of Victoria's rural water storages (9,396 GL) is represented by Lake Eildon (3,390 GL) and the state's share of Murray basin storages (3,557 GL). In the year to December 2009, the volume of water in Lake Eildon increased from 22.5% of capacity to 30.9%.

The total capacity of the state's storages was reduced by 365 GL in April 2009 following the decommissioning of Lake Mokoan, while 38 GL was added to full capacity in June 2009 when the Tarago Reservoir was added to the Melbourne supply system. A summary of changes to total storage capacity since December 2004 can be found in paragraph 6 of the [Explanatory Notes](#).



View underlying table as an Excel spreadsheet: [1367.2 Water storage levels, By River Basin \(file size 25kB\)](#).

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Living Arrangements of Victorians, 2006: A Life Course Perspective (Feature Article)

FEATURE ARTICLE: LIVING ARRANGEMENTS OF VICTORIANS, 2006: A LIFE COURSE PERSPECTIVE

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INTRODUCTION

Understanding the diversity of living arrangements entered into over the life course of Victorians is of interest to social planners across all tiers of government, academics and social researchers. The propensity to live in particular arrangements at particular ages highlights life transition points where people move from one living arrangement to another. This time of transition is often associated with periods of great change in an individual's life but may also be associated with increased vulnerability. Being able to identify this period of transition could assist in identifying sub-populations at risk and would be useful for developing or testing the efficacy of social policy interventions.

In this article the living arrangements of Victorians are reported using 2006 Census data, with a particular focus on the statistical distribution of these living arrangements for different age cohorts (children and teenagers, younger adults, the middle aged, and older Victorians). Analysis concentrates on household living arrangements by drawing on data regarding the type of family and non-family household structures in which different populations tend to live at different points in their lives. There is further investigation of the differences found in the sub-populations of people from culturally and linguistically diverse backgrounds, people holding a qualification, and people with a disability. Differences between the experience of males and females are also discussed where relevant.

LIMITATIONS OF THE ANALYSIS

The investigation of Census data was not a longitudinal analysis, rather a snapshot of the population at a point in time which showed aggregate social trends. For this study the focus was on differences in the distribution of living arrangements between different sub-populations. However, to understand the reasons and drivers of an increased propensity to be in particular living arrangements would require further social research.

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KEY VARIABLES

Census variables for living arrangements were derived based on the type of household and family structure that an individual belonged to as well as the person's relationship to others in the household. These were derived from Census classifications **family composition**, which described the make-up of a family, and **relationship in household**, which described how an individual fits into the household. **Household composition** was also used for non-family households such as lone persons and group households.

Table 1: Living Arrangements, description and proportion of persons, Victoria, 2006

Category	Description	Proportion %
Child at home	Child under 15, dependent student or non-dependent child, who usually resides with his/her parent/s. Includes foster, adopted and step children, otherwise related children under 15, unrelated individuals under 15 and adult children living with their parent/s. In order to be classified as a child, the person can have no identified partner or child of his/her own usually resident in the household.	29.5

	Child under 15	All persons under 15 years of age who usually reside in a private dwelling are defined as children under 15. This also includes relationships such as niece/nephew, grandchild, cousin and unrelated child.	
	Dependent Student	Person aged 15-24 years who usually resides with his/her parent/s and attends a secondary or tertiary educational institution as a full-time student.	
	Non-dependent Child	Person aged 15 years and over who usually resides with his/her parent/s and is not a full-time student aged 15-24 years.	
In couple with children	Person living in a couple relationship (either married or de facto) with a child/children also living in the household.		24.1
In couple without children	Person living in a couple relationship (either married or de facto) without a child/children living in the household.		18.5
Lone parent	Person not living in a couple relationship, with a child/children also living in the household (identified by the child's usual residence).		4.0
Group household member	Person living in a household containing two or more unrelated people where all persons are aged 15 years and over.		3.2
Lone person	Person living alone aged 15 years and over.		8.8
Other	Persons classified as other related individuals or unrelated individuals living in family households, visitors (from within Australia), persons in not classifiable households, persons in non-private dwellings and persons resident in shipping, migratory or off-shore Census collection districts.		11.8
Please note: persons who were not at home on Census night were not given a relationship for their usual household and therefore were coded as visitors. Data quality statements for Relationship in Household, Family Composition and Household Composition can be found in the Census Dictionary.			

The individuals making up the Victorian population come from a diverse range of backgrounds. In order to examine some of this diversity further analysis of several sub-populations of interest was undertaken. In order to examine the living arrangements of the sub-populations assumptions were made about particular Census variables. These have been outlined in a table of definitions at the end of the article. It is important to recognise that the variables used are only one way of describing these sub-populations and should be interpreted as broad level indicators which highlight areas requiring further analysis. The key sub-populations used for discussion were defined as follows:

Table 2: Sub-populations, variables, description and proportion of persons, Victoria, 2006

Sub-population	Variable/s	Variable Mnemonic	Description	Proportion %
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Persons born in a non-main English speaking country (NMESC)	Country of Birth of Person	BPLP	NMESC is often used as a broad indicator of the population from culturally and linguistically diverse backgrounds.	17.2
Persons with a non-school qualification	Non-School Qualification: Level of Education Non-School Qualification: Field of Study	QALLP QALFP	Used to indicate the population who hold a qualification attained outside school (e.g. bachelor degree, diploma).	34.3
Persons with need for assistance with core activities	Core Activity Need for Assistance	ASSNP	Used to determine people with a profound or severe disability.	4.2

In contrast to sex and place of birth, differences in education levels and disability are subject to fluctuation over the course of an individual's life. The effect of educational attainment on living arrangements is somewhat confounded by the influences of being a student (particularly for those aged under 30), the ability to undertake additional training at any age, and the change in social norms which have seen participation in education increase (ABS 2006). The proportion of the population with a need for assistance in core activities generally increases with age, and this may differentially impact on the choice of living arrangements at older ages.

Caution should be exercised when interpreting data about persons with a need for assistance for individual ages as analysis was based on small numbers, which has implications for comparability with single year data for other population groups. To overcome this a five point moving average was applied to the data to address volatility. Therefore only general observations were made regarding the transition ages and age-specific proportions.

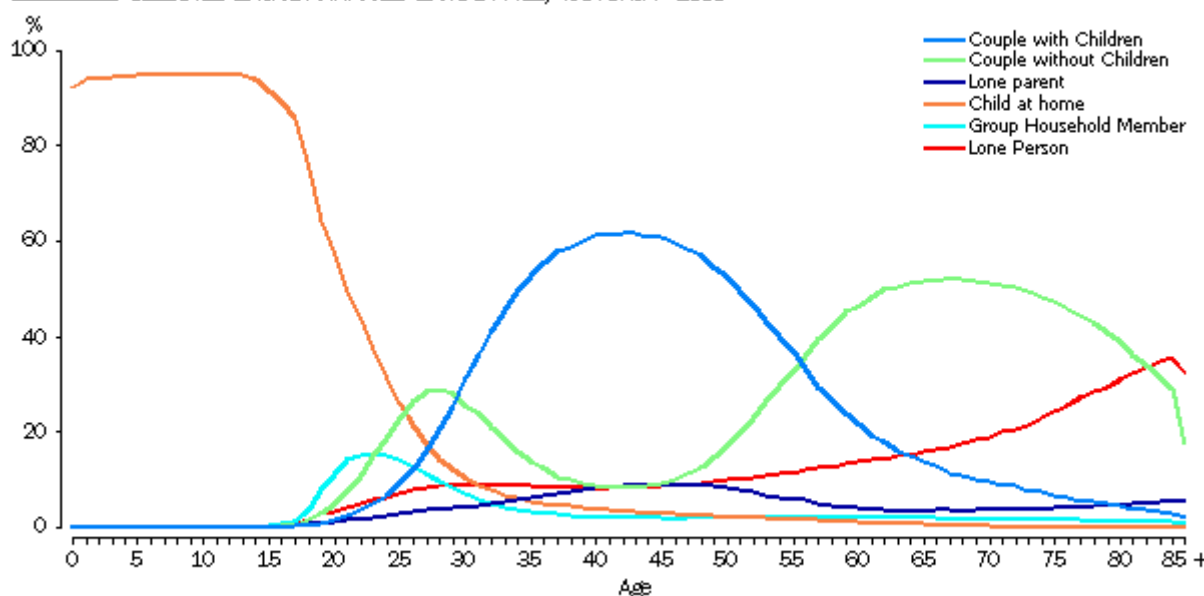
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LIVING ARRANGEMENTS IN VICTORIA, 2006

Through the course of life, people enter into a range of different living arrangements. In 2006, Victorians lived in a diverse range of household living arrangements but were far more likely to be living (graph 1):

- with their parents up to age 25,
- in couple relationships with no children from age 26 to 29,
- as a partner in couple with children families from age 30 until mid fifties,
- in couples with no children again from mid fifties until early eighties,
- as lone persons from early to mid eighties,
- in institutional care or continuing to live alone aged 85 and over.

Graph 1 SELECTED LIVING ARRANGEMENTS BY AGE, VICTORIA - 2006



Source: 2006 Census of Population and Housing

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CHILDREN AND TEENAGERS (AGES 0 - 19)

Evidence from previous studies have highlighted a number of significant trends in the living arrangements of children and teenagers, such as the increasing incidence of children living with one parent (ABS 2001), the decreasing marriage rate (Office for Women 2007), women having children at older ages (Laws and Sullivan 2009) and blended families becoming more common (AIFS 2009). As families have changed there are implications for the range of government and community services that support their needs and wellbeing, such as income support, health and education services, child care, and housing. However, even as family diversity increased (De Vaus and Grey 2004), Victorian children and teenagers were still primarily living at home with both of their parents.

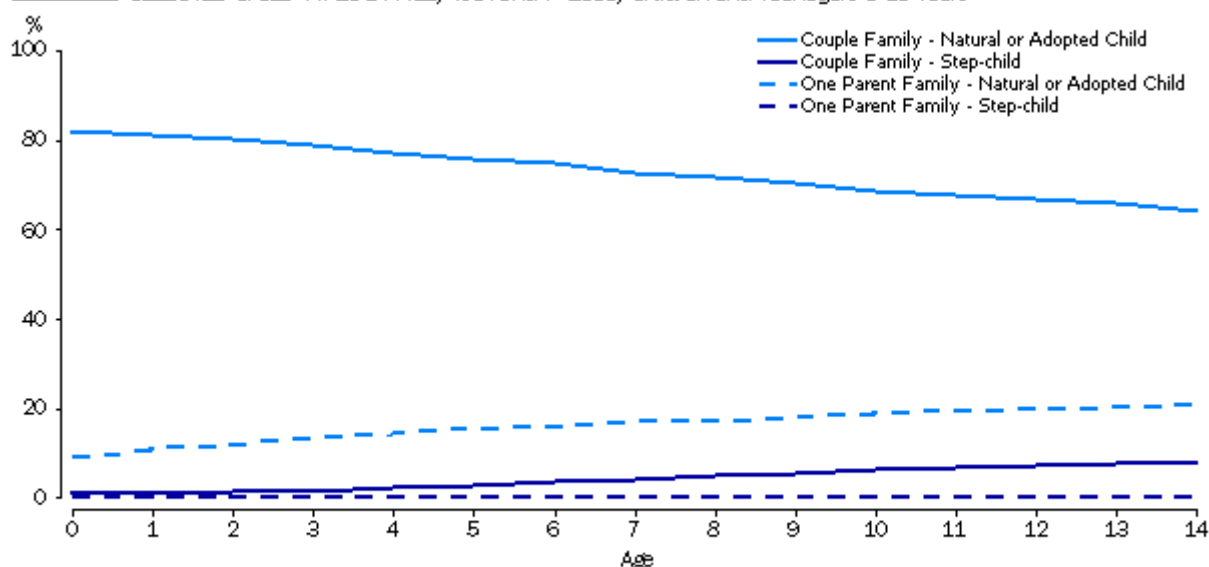
In 2006, the main trends found for Victorian children and teenagers were (graph 1):

- Most lived as children at home, 74.0% with their couple parents and a further 17.0% living with their lone parent.
- As they reach their late teens, teenagers started to move out of the family home into group houses (7.7% at 19 years) or to live alone (2.6% at 19 years).

Amongst children aged under 15 (graph 2):

- Most were the natural or adopted children of their parents, with the majority of these in couple families. As children age into their teens the proportion who were natural or adopted children in couple families fell (from 81.4% at age 1 to 64.0% at age 14), while the proportion in one parent families increased (10.8% to 20.7% at the same ages).
- Step-child was the second most common child type in couple families, but was uncommon in one parent families. For example at age 7, 4.2% of children in couple families were step-children compared to almost none of the children in lone parent families.

Graph 2 SELECTED CHILD TYPES BY AGE, VICTORIA - 2006, Children and Teenagers 0-15 Years



Please note: As child type is only applicable to persons under 15, the ages of 15 to 19 have not been included in this graph.
Source: 2006 Census of Population and Housing

For the living arrangements of males and females aged 0 to 19:

- There was little difference between the sexes, especially from ages 0 to 16.
- Relatively more males were living with their parent/s as non-dependent children in the later teenage years (a difference of 9 percentage points at age 19).
- More females were living as students at home with their parent/s (a difference of 7 percentage points at age 17).

Persons born in a non-main English speaking country

The main differences in living arrangements for the population born in a NMESC compared to those born in a main English speaking country (MESC) were:

- NMESC born children and teens were less likely to be living in a one parent family.
- Until mid teens, there was a greater tendency for NMESC born children to live with their parents in couple families, but in the late teen years this dropped significantly as a greater proportion lived in group houses and alone.
- From the mid teens there was an increasing number of NMESC born persons who fell into the 'other' category (11.2% to 26.3% from ages 15 to 19). This occurred earlier and was higher than for MESC born Victorians. These people were mainly living in boarding schools, residential colleges or as unrelated individuals living in family households.

The differences in living arrangements between the NMESC and MESC born populations can partly be explained by the high number of international students in Victoria (DEEWR 2008). These students are away from their families, and living alone, sharing with other students either in private rental or more formal student accommodation, or boarding with families.

Persons with a need for assistance

The main similarities and differences in living arrangements of the population who needed assistance with core activity compared to those who didn't need assistance with core activity were:

- Both persons with and without a need for assistance were predominantly living as children with their parent/s.
- The main difference between these populations was that a relatively higher proportion of children with a need for assistance lived in one parent families. For example, for those aged 8 to 11 years of age with a need for assistance almost 30% resided in lone parent families (compared to just under 20% for persons with no need for assistance).

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YOUNGER ADULTS (AGES 20 - 39)

For most people this is principally a time of transition and change, therefore living arrangements were diverse across this cohort. As young Australians have delayed moving in with a partner later than ever before and have stayed in the family home longer, the key milestones of a young adult's life have been pushed out to older ages (ABS 2009). Changes in the living arrangements of younger adults have often been associated with major changes in their lives, such as starting study or employment, but other factors such as financial security and housing affordability could also come into play (ABS 2009). These changes could be partly influenced by policy drivers, such as income support for students and home ownership incentives.

In 2006, the main findings for Victorians ageing into their twenties and thirties were (graph 1):

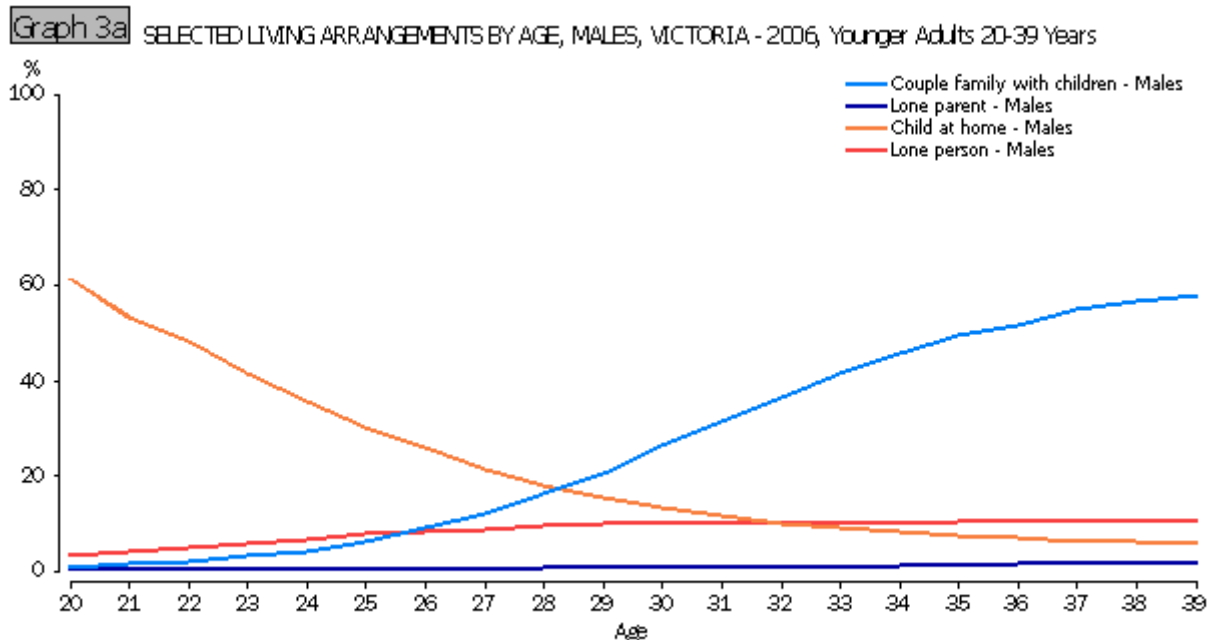
- In their early twenties most were still primarily living as children at home, however as age increased they began to move out of the parental home and, increasingly, to live as part of a couple. At age 22 a substantial proportion lived in couples without children (10.9%). These were mainly de facto relationships until age 27 when registered marriages took precedence.
- Couples without children became the dominant living arrangement at age 26 (26.1%) and this continued until age 29.
- Couples with children were the most common living arrangement from age 30.
- Group household was a common living arrangement for people in their twenties, and peaked at age 23 (15.3%) before trailing off as they reached their thirties.
- A high proportion of younger adults did not fall under any of the traditional living arrangement categories used in this study or were not given a relationship in the household they usually resided in because they were visiting another dwelling on Census night (between 8.8% and 21.2%).

Females and males followed similar patterns in the distribution of their living arrangements but females transitioned from one living arrangement to another two years earlier as seen in graphs 3a and 3b. The other main differences were:

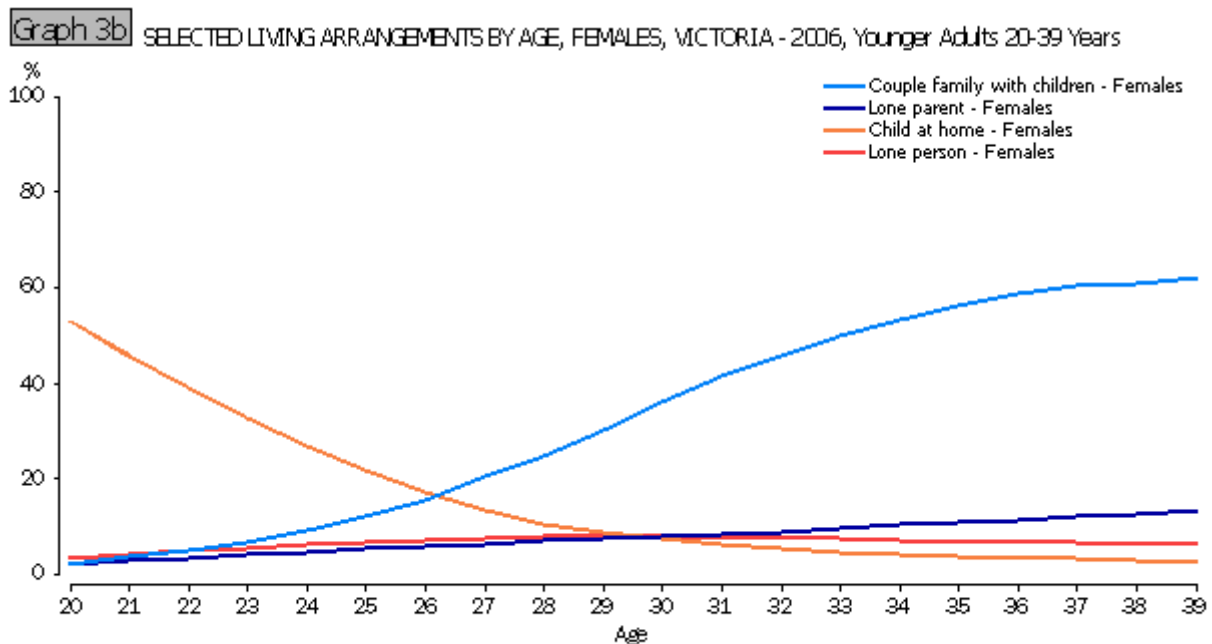
- Males tended to remain living with their parents (children at home) longer than females.
- Females became part of a couple living arrangement slightly earlier than males, both with and without children.
- Males remained in group households longer than females and were more likely to be living alone during their thirties.
- There was a greater occurrence of males in the 'other' category (16.1% of males

compared to 12.2% of females overall), mostly due to the higher numbers of males who lived in prison or corrective institutions, staff quarters, other not classifiable households and as unrelated individuals in family households.

- Females at age 30 were equally likely to have been living as lone parents (7.7%), children at home (7.5%) or lone persons (7.9%). From this point the proportion of lone parent females increased and females living with their parents decreased. At age 32, female lone person households started to decrease.



Source: 2006 Census of Population and Housing



Source: 2006 Census of Population and Housing

Persons with a non-school qualification

The main differences in living arrangements of the population with a qualification compared to those without a qualification were:

- Younger adults with a qualification were more likely to be living in couples without children.
- Those with a qualification also appeared to have children slightly later (reaching

approximately 20% of the population at age 28, compared to age 25 for those without a qualification).

- Victorians without a qualification became lone parents earlier (9.4% at age 36 compared to 4.7%).

Persons born in a non-main English speaking country

The main differences in living arrangements of the population born in a NMESC compared to those born in a MESC were:

- Victorians aged in their twenties born in a NMESC were less likely to live in their parental home (children at home).
- NMESC born persons were more likely to live in group households (over 10 percentage points difference at age 20-23).
- NMESC born persons were more likely to live in married couples without children (over 7 percentage points from 27 to 29).
- Couples with children became the dominant living arrangement at age 30 for both populations, however it grew faster for NMESC born couples (68.1% compared to 61.1% at age 39).

As in the children and teenagers cohort, some of these differences could be partly explained by Victoria's large number of international students. Cultural differences and migration circumstances were also likely influences. Victoria, and more specifically Melbourne, has had a high international student population which falls in this age range (DEEWR 2008). By investigating persons from NMESC, the experiences of a large proportion of the international student population can be examined. As international student numbers increased, there has been a range of policy involvement to support the needs of this growing group. Where and how international students live is greatly impacted by the provision of affordable housing options, whether at student halls of residence, rental properties or sharing with families, and its proximity to educational institutions, transport and other services.

Persons with a need for assistance

The main differences in living arrangements of the population who needed assistance with core activity compared to those who didn't need assistance with core activity were:

- There was a greater incidence of younger adults in their early twenties with a need for assistance who lived in their parental home (approximately 60% to 75% classified as children at home compared to 30% to 50%) until their late thirties when they primarily started living as part of a couple with children.
- The rate of living in a couple with children was much lower for the population with a need for assistance, around 25% - 30% in late thirties compared to 60% to 65%.
- Comparatively, more younger adults with a need for assistance lived as part of a couple without children, as group household members or as lone persons in their mid to late thirties.

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MIDDLE AGE (AGES 40 - 59)

Over recent years the issues associated with the structural ageing of the population have

received increased attention by governments and researchers. Broad issues affecting the ageing population include ensuring adequate retirement incomes, labour force participation, healthy ageing and provision of community support, health services and aged care (ABS 2005). Persons in their forties and fifties have been identified as a key population group in terms of policy development to address these challenges. The older members of this group are nearing the traditional retirement age of 65 years and some have already withdrawn from the labour force.

This age grouping is also considered part of the 'baby boom' cohort (ABS 2004) (people born 1946-1966) which has special significance due to its size. It has been recognised that this generation has lived through enormous social change, such as rising rates of female participation in both tertiary education and the labour force (ABS 2006), and increasing rates of marital separation (ABS 2006).

In 2006 amongst middle aged Victorians, it was found (graph 1):

- Couple relationships with children were the most common living arrangement between the ages 40 to 55, and peaked at age 43 (61.8%).
- After the age of 43, living in couples with children became less common, and fell to 23.7% of people aged 59.
- At 56, living in couple relationships without children became the most common living arrangement (36.2%) and continued to become more common beyond the age of 59. This was associated with an increasing number of children moving out of the parental home.

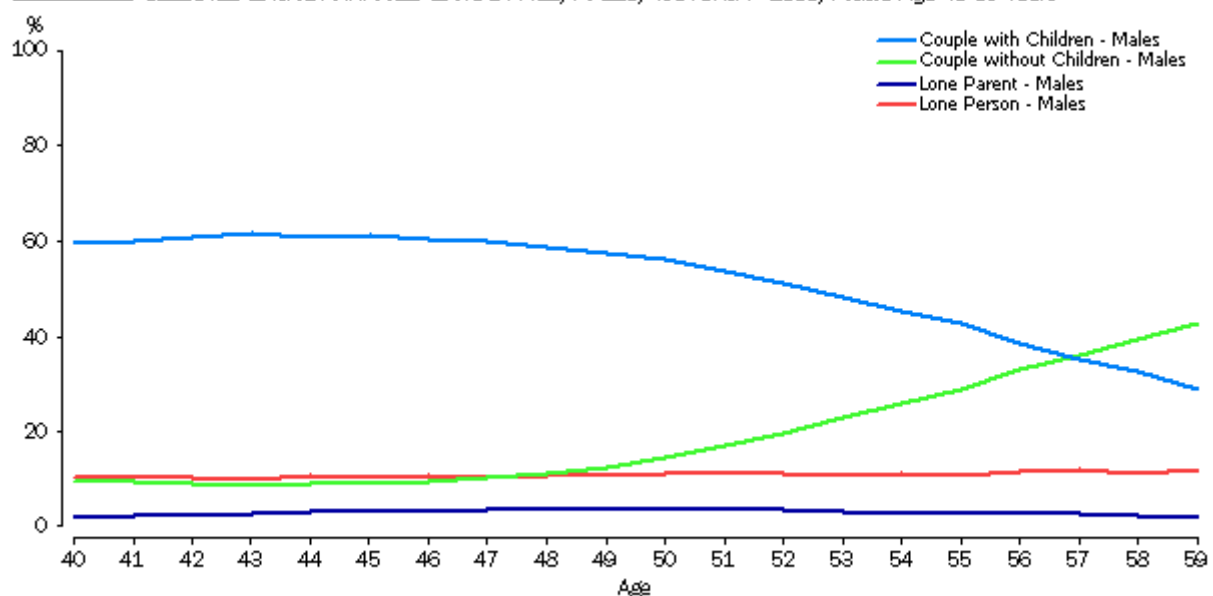
There were some interesting gender differences between the most common living arrangements for people aged 40 to 59 (graphs 4a and 4b):

- While both sexes held a similar proportion of people living in couples with children from their early forties (around 60%), from the age of 48 there was a higher proportion of males at each age in this living arrangement.
- The transition from a dominance of couples with children to couples without children occurred two years younger for women (age 55 compared to 57 for males).
- Lone parenting was more common amongst females, becoming most pronounced in their forties and early fifties. At 42, 14.3% of females were lone parents compared to 2.5% of males.

Amongst all Victorians, living alone became increasingly more common from age 44, representing 8.3% of the age group, and increasing to 13.3% by age 59. For males and females:

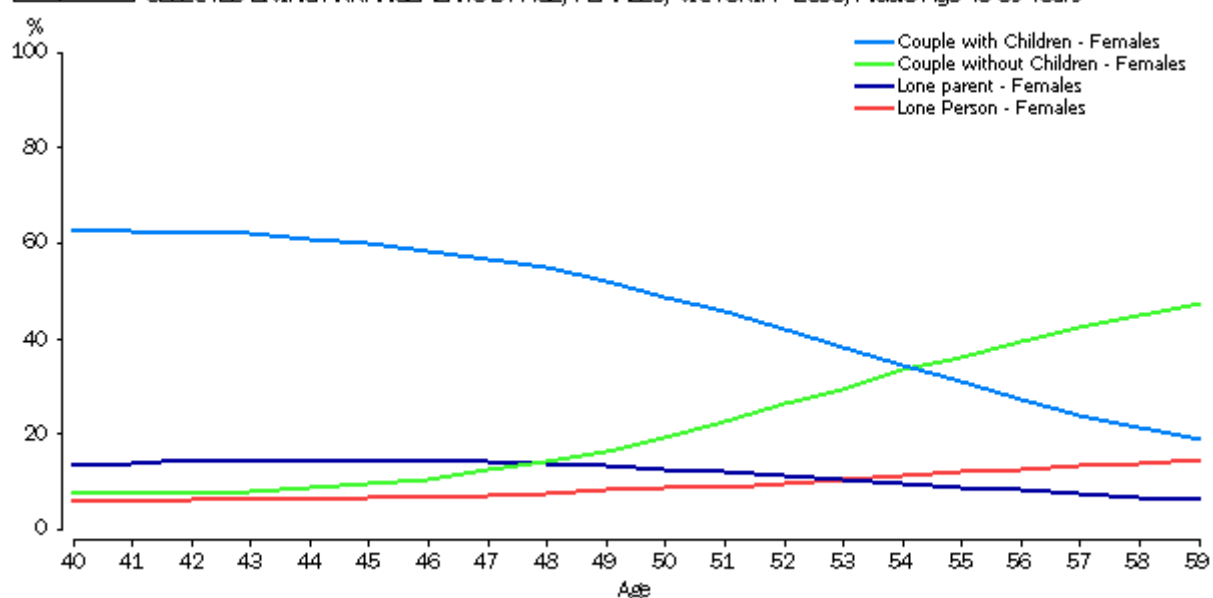
- Lone person households were more common amongst males in their early forties (10.2% at age 40 compared to 5.7% for females).
- At the age of 55, females took over as holding a higher proportion of lone person households, and this continued into older ages.

Graph 4a SELECTED LIVING ARRANGEMENTS BY AGE, MALES, VICTORIA - 2006, Middle Age 40-59 Years



Source: 2006 Census of Population and Housing

Graph 4b SELECTED LIVING ARRANGEMENTS BY AGE, FEMALES, VICTORIA - 2006, Middle Age 40-59 Years



Source: 2006 Census of Population and Housing

Persons with a non-school qualification

The main differences in living arrangements of the population with a qualification compared to those without a qualification were between males and females:

- Males in their forties with a non-school qualification were more likely to be found in couple with children households (e.g. 69.1% at the age of 43 compared with 57.5% of females).
- Amongst females there was very little difference in the living arrangements of those with and without a qualification.

Persons born in a non-main English speaking country

The main differences in living arrangements of the population born in a NMESC compared

to those born in a MESC were:

- Amongst middle aged Victorians born in NMESC, higher proportions were living in couple relationships with children, particularly for males aged 54 to 59 (at age 54, 62.0% compared to 42.5%).
- Proportionally less Victorians born in NMESC were in childless couples at these ages.

Persons with a need for assistance

The main differences in living arrangements of the population who had a need for assistance with core activity compared to those who didn't have a need for assistance were:

- While people with a need for assistance in their forties through to mid fifties were most likely to be found living in couples with children (approximately 30%), it was in much lower proportions compared to people without a need for assistance (approximately 55%).
- There were proportionally more people with a need for assistance living with their parents (particularly in their early forties), living in group households, or living in institutional care, in particular hostels for the disabled (forties to mid fifties) and nursing homes (early fifties onwards).

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OLDER AGE (AGES 60 AND ABOVE)

In recent years policy regarding older Australians has put increased emphasis on early intervention, 'healthy ageing' and programs aimed at helping older people to remain in their own homes, instead of health and residential facilities, for as long as possible (McIntosh and Phillips 2003). There have been various options for aged care, such as the provision of care in home (AIHW 2006), aged care facilities, access to support networks (both family and community) and financial stability through pensions, superannuation and other income (DPS 2005). The living arrangements of the elderly are therefore of particular interest to these policy areas.

In 2006 amongst older Victorians it was found (graph 1):

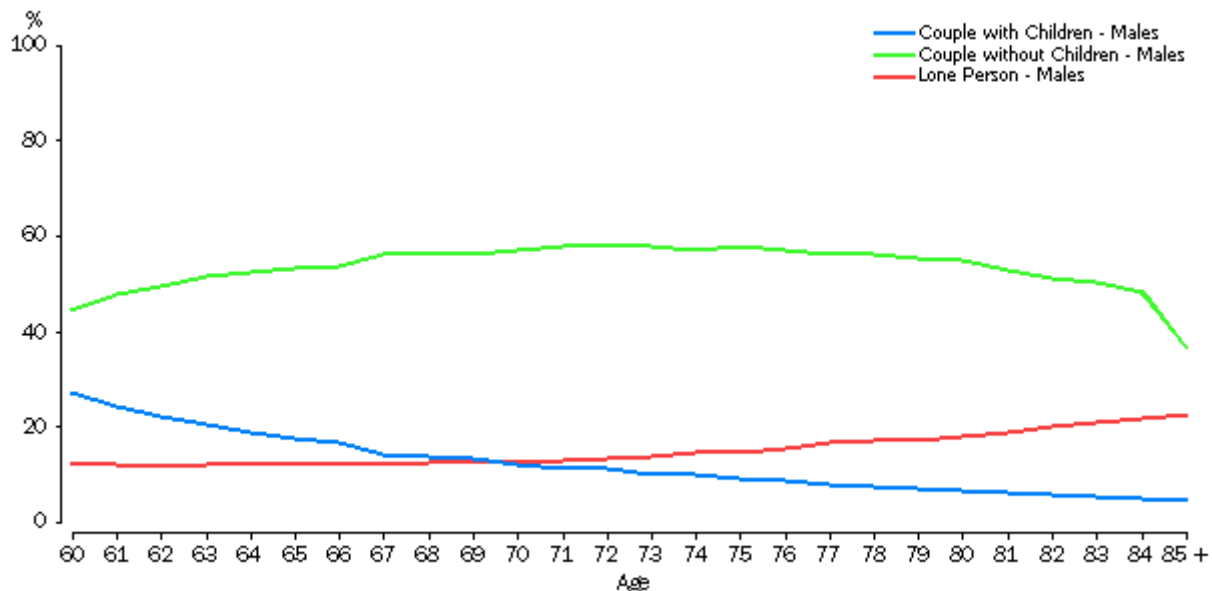
- Living in couples without children remained the dominant living arrangement until the age of 82.
- The proportion of people living alone continued to increase until age 84, and was the most common living arrangement for people aged 83 and older.
- Further analysis found that an increasing proportion of the very elderly (those 83 and older) resided in non-private dwellings, mainly nursing homes and aged care facilities.

The tendency for males to be older than their partners and longer life expectancy for females generally has ensured that most males are married into their older years, while females are more often widowed (United Nations 2005). The results showed some clear differences in the living arrangements of males and females in the older ages (graphs 5a and 5b):

- From early sixties, the proportion of males living in couples without children grew by a greater amount than for females, continuing into the early seventies. The proportion of females living in couples without children declined from the age of 66.
- Even in the older ages there was a much larger proportion of males in childless couple households (48.1% compared to 16.5% at 84 years of age).

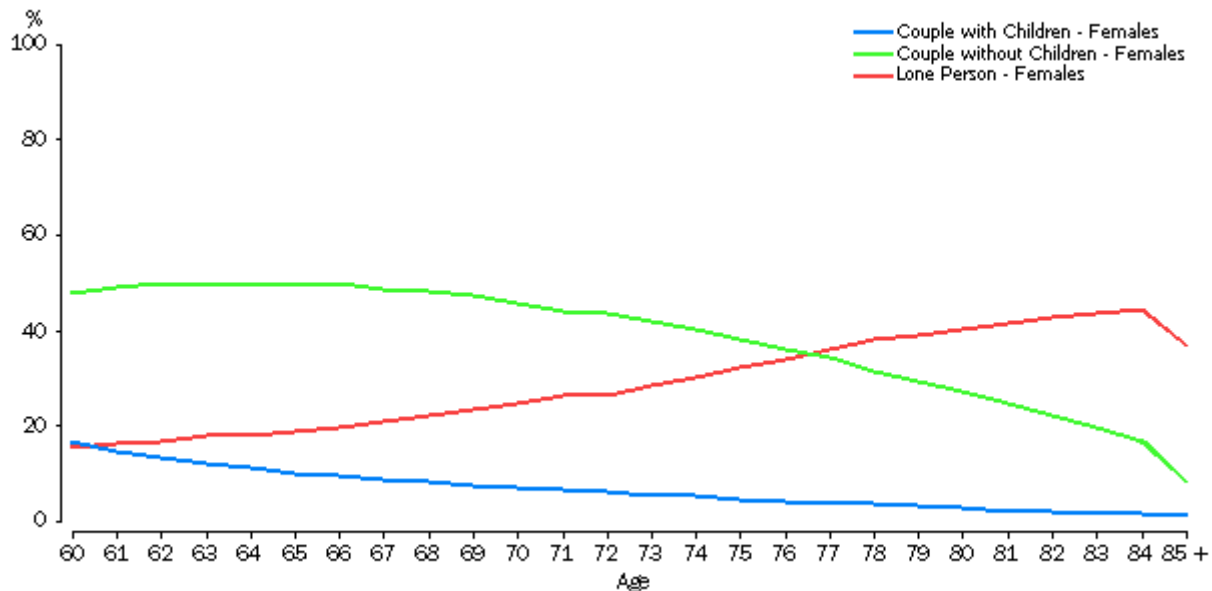
- At every age amongst older Victorians, the proportion of males in couples with children was greater than for females, however the gap did narrow as age increased.
- A large difference in the proportion of females and males in lone person households particularly amongst the very old (at age 84, 44.3% of females compared to 21.9% of males).

Graph 5a SELECTED LIVING ARRANGEMENTS BY AGE, MALES, VICTORIA - 2006, Older Age 60+ Years



Source: 2006 Census of Population and Housing

Graph 5b SELECTED LIVING ARRANGEMENTS BY AGE, FEMALES, VICTORIA - 2006, Older Age 60+ Years



Source: 2006 Census of Population and Housing

Persons with a need for assistance

Approximately fifteen percent of this population had a need for assistance with core activities, the largest of any age cohort examined. The main differences and similarities in living arrangements of the population who had a need for assistance with core activity were:

- There was a lower proportion of persons who had a need for assistance living in couples without children (for example, in their early sixties, approximately 45% compared to 55% of the population with no need for assistance).

- This was the predominate living arrangement, however, for both populations.

Persons born in a non-main English speaking country

The main differences in living arrangements of the population who had a need for assistance with core activity compared to those who didn't have a need for assistance were:

- Older Victorians born in NMESC held a higher proportion of people living in couple relationships with children than amongst those who were born in MESC.
- For example, at 64 years of age 33.0% of NMESC born compared with 14.5% MESC born people were living in couple relationships with at least one of their children at home.

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CONCLUSIONS AND RECOMMENDATIONS

The value of using Census data to assist in understanding the diversity and distribution of living arrangements across the life course of the Victorian population has been demonstrated in this study. By observing the age at which the different living arrangements start to predominate in each age cohort, key ages of transition were identified. Also highlighted were real differences between the distribution of living arrangements across a number of sub-populations. This could be explored further to identify factors of potential risk and/or disadvantage that may impact individual and social wellbeing in these periods of transition.

Using Census data in this type of analysis is of real value to the development of policy responses as the results:

- quantify and give evidence of the reality of the circumstances identified in the community and by other studies, and
- provide net implications for Victoria.

Using Census data for this type of study also has the potential for results:

- to be compared across Census years to measure changes in propensity over time, and
- to be spatially located to show the relative impact of geography.

It is recommended that additional Census data be used to gain a more complete picture of the sub-populations of concern. Further analysis will allow researchers to identify impacts on specific communities and should provide relevance to different policy initiatives.

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DEFINITIONS

Table 3: Definitions of variables used in this study

Variable/s	Definition
Sex	Determines whether persons are male or female.
Non-Main English Speaking Countries (NMESC)	Based on "Country of Birth of Person" (BPLP). Main English speaking countries (MESC) were as follows: Australia, Canada, Republic of Ireland, New Zealand, South Africa, United Kingdom (England, Scotland, Wales, Northern Ireland) and the United States

	<p>of America. NMESC were all those outside the MESC list. NMESC is often used as an indicator of the population from culturally and linguistically diverse backgrounds. The NMESC classification is helpful only for a broad indication of diversity. Analysis of Census data by other ethnicity variables, including languages spoken, English proficiency and ancestry, may be useful for many policy and planning purposes.</p> <p>Data quality statement: Country of Birth of Person.</p>
<p>Non-School Qualification: Field of Study</p> <p>Non-School Qualification: Level of Education</p>	<p>These variables determine the field and level of a person's qualification but do not measure how many persons hold a qualification. All steps have been taken to ensure that combined they accurately reflect the population of people holding a qualification as best as possible.</p> <p>Non-school qualification includes certificate, diploma, bachelor degree, graduate certificate, graduate diploma and postgraduate degree.</p> <p>Finer grained analysis of qualification type would also be valuable in further studies.</p> <p>Data quality statement: Non-School Qualification: Field of Study, Non-School Qualification: Level of Education.</p>
<p>Core Activity Need for Assistance</p>	<p>This population is a subset of the broader disability population, and is more readily and consistently identifiable than that broader population.</p> <p>This indicator measures the characteristics of people with a profound or severe disability, that is, people needing help or assistance in one or more of the three core activity areas of self-care, body movement and communication, because of a disability (lasting six months or more), long term health condition (lasting six months or more) or old age.</p> <p>Data quality statement: Core Activity Need for Assistance.</p>

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History of Changes

This document was added or updated on 23/02/2010.

12/03/2010 Two spreadsheets not included in the original release have been released as additional information. The spreadsheets are:

- Employed persons, By Occupation and Major Statistical Region - November quarter 2009
- Balance of international merchandise trade

The 21 spreadsheets in the original release are unchanged. The two new spreadsheets are listed on the Downloads page after the spreadsheets in the original release.

12/03/2010 The Employed persons by Occupation page in the Work and Income chapter has been replaced to amend one incorrectly rounded figure in the commentary. The proportion of people employed as Managers in the Melbourne MSR was incorrectly shown as 13.4%. The actual figure rounded to two decimal places was 13.32%, so the correct figure rounded to one decimal place should have been 13.3%.

No other figures in the commentary were affected.

23/02/2010 Four spreadsheets in the original release incorrectly contained the table of another spreadsheet in the release. These spreadsheets have been re-released and now contain the correct tables. The affected spreadsheets were:

- International merchandise trade, By Commodity - Victoria
- International merchandise trade, By Major trading partner - Victoria
- Air quality, By Region
- Water storage levels, By River Basin

The other 17 spreadsheets in the original release were not affected.

Two other spreadsheets were not included in the original release, and these will be released

as additional information at a later date:

- Employed persons, By Occupation and Major Statistical Region - November quarter 2009
- Balance of international merchandise trade

23/02/2010 Graph 4a in the Feature Article has been replaced. While the data and labelling for the series as included in the original graph 4a were correct, the graph should have referred to four series of data for males only, in a similar way to graph 4b for females. The incorrect graph did not affect the related commentary in the article, and no other graphs have been affected.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 This quarterly publication contains data from both ABS and non-ABS sources. The ABS publications referenced within the publication, as well as the websites of non-ABS organisations, can be found listed below. For further information, users are directed to these references.

AIR QUALITY

2 The Environment Protection Authority (EPA) reports air quality as an index for any given pollutant as its concentration expressed as a percentage of the relevant standard. It enables easy interpretation of whether the pollutant is at a level which may cause harm. An index value of 100 means the pollutant is currently at a concentration equal to the National Environment Protection Measure (Air NEPM) or State Environment Protection Policy (The Air Environment) (SEPP) standard levels (levels designed to protect human health and the environment). Indexes are calculated separately for each measured pollutant: Ozone, Nitrogen Dioxide, Sulfur Dioxide, Carbon Monoxide, Fine Particulates (PM10), Visibility (Airborne Particle Index). For each station, the daily pollutant indexes are the maximum index values for that day. Note that not all pollutants are measured at each station. The EPA also calculates an overall Air Quality Index, which amalgamates each pollutant index into an overall measure of air quality at each station.

3 The air quality data have been provided for the Ozone and Visibility (or Airborne Particle) Indexes as these are the dominant pollutants and are widely measured across the EPA network. It should also be noted that meteorological conditions are a major determinant on the incidence of elevated pollutant levels. Hence significant daily, seasonal and annual variations can be expected in air quality. For more information on air quality, see the [EPA web site](#).

4 The air quality index is converted into a qualitative scale with five commonly understood terms. Very good (0-33), Good (34-66) and Fair (67-99) represent measurements within the

standards, while Poor (100-149) and Very poor (150+) represent measurements exceeding the standards.

5 For air quality reporting purposes the Port Phillip Region (PPR) has been divided into 4 regions: East, West, City and Geelong. Air monitoring stations assigned to each region are: East - Alphington, Brighton, Box Hill, Dandenong, Mooroolbark; City - RMIT, Richmond; West - Footscray, Melton, Point Cook, Paisley; Geelong - Point Henry, Geelong South. In addition, the Latrobe Valley has stations at Moe and Traralgon. The regional index is considered to be the maximum of the station indexes calculated within each particular region. The daily index reported for a region is the maximum region index recorded each day.

CHANGES IN CAPACITY OF WATER STORAGEES

6 The capacity at full service level of Victoria's water storages changes periodically due to a number of factors including the commissioning and decommissioning of reservoirs, and the review of operational storage capacities of reservoirs. A summary of changes affecting capacity at full service level is given below.

- **December 2004:** Capacity of storages in Werribee and Maribyrnong basins reduced by 7 GL;
- **April 2005:** Capacity of Glenelg/Wimmera basin storages reduced by 24 GL;
- **January 2007:** Moondarra Reservoir (capacity 30 GL, initial storage volume 23 GL) added to the Thomson/Latrobe basin;
- **September 2008:** Glenmaggie Reservoir (Thomson/Latrobe basin) capacity reduced by 12 GL;
- **April 2009:** Lake Mokoan (Broken basin, capacity 365 GL) decommissioned;
- **June 2009:** Tarago Reservoir (capacity 38 GL, initial storage volume 22 GL) added to the Melbourne supply system.

MELBOURNE METROPOLITAN AREA

7 Most of the small area data provided by non-ABS organisations are aggregates at Local Government Area (LGA) level. With one exception, LGAs do not cross Statistical Division (SD) boundaries, and therefore it is generally possible to form SD data from aggregate LGA data. However, while the majority of the Yarra Ranges (S) LGA is in the Melbourne SD, the Yarra Ranges (S) - Pt B SLA is in the Gippsland SD. As a result, in these instances it is not possible to derive data for Melbourne and Gippsland SDs as exactly defined in the **Australian Standard Geographical Classification** (ASGC) (cat. no. 1216.0).

8 Where necessary, the Yarra Ranges (S) LGA as a whole is included with the LGAs in Melbourne SD to form a region referred to as the Melbourne Metropolitan Area (MMA). Consequently, in these instances Gippsland SD excludes Yarra Ranges (S) - Pt B SLA.

9 As an indication of the relative size of Yarra Ranges (S) - Pt B SLA, at 30 June 2008 it had a preliminary estimated resident population (ERP) of 612 persons. At the same date, the total ERP of Yarra Ranges (S) LGA was 146,886, while Gippsland SD had a total ERP of 170,779.

GEOGRAPHY AND MAPS

10 Maps of SLAs and SDs within Victoria can be found in **Australian Standard Geographical Classification** (ASGC) (cat. no. 1216.0) on the Downloads page (1216.0 - 2009 ASGC - Victorian Maps). A listing of SLAs within each LGA (Local Government Areas and Statistical Local Areas - Alphabetic) can be accessed from the same page, along with listings of SLAs within each SD (Main Structure - Detailed) and Statistical Region (SR) (Statistical Region Structure - Detailed).

11 Unless otherwise indicated, boundaries of LGAs, SDs and SRs referred to in this publication are consistent with those in the 2009 Edition of the ASGC. The most recent change to an LGA boundary in Victoria was effective from 1 July 2008 and involved Melbourne (C) gaining 111.8 hectares (and 5,712 persons based on preliminary ERP at 30 June 2008) from Moonee Valley (C).

Regional and small area labour force estimates

12 The regions in Victoria for which the ABS produces estimates from the Labour Force Survey are revised at the time of the labour force sample redesign following each Census of Population and Housing and remain stable until the next labour force sample redesign. From November 2007, these regions are consistent with the SRs in the 2006 Edition of the ASGC. Consequently, the LGA boundary change between Melbourne (C) and Moonee Valley (C) is not reflected in LFS data. There were no changes to Victorian SR boundaries between 2001 and 2006 that involved population. For further information on LFS data at regional level, please see **Information Paper: Regional Labour Force Statistics** (cat. no. 6262.0). Maps of SRs used in the LFS can be found in **Australian Labour Market Statistics, Jul 2009** (cat. no. 6105.0) on the Downloads page (6105.0 - Labour Force Region Maps - Victoria - 2007).

13 The quarterly small area unemployment rate estimates produced by DEEWR are based on the regions used by the ABS in the LFS. Even though there were no changes to Victorian SR boundaries between 2001 and 2006, there have been changes to LGA boundaries involving population which may have impacted on the small area unemployment rate time series. These boundary changes have been incorporated into the estimates for the smoothed series (the series included in this publication) from September quarter 2008, and have not been backcast to earlier periods. In Victoria, the affected LGAs are:

- Alpine (S) - previously included Falls Creek and Mount Hotham Alpine Resorts (estimated resident population of 163 at 30 June 2003);
- Benalla (RC) - previously part of Delatite (S);
- Mansfield (S) - previously part of Delatite (S); and
- Unincorporated Vic. - previously only French Island, now includes Falls Creek, Mount Baw Baw, Mount Buller and Mount Hotham Alpine Resorts.

14 Changes to internal SLA boundaries between 2001 and 2006 have affected the timing of the introduction of new LFS population benchmarks based on the 2006 Census of Population and Housing into the small area unemployment rate time series for the LGAs of Baw Baw (S), Campaspe (S), Colac-Otway (S), Greater Bendigo (C), Knox (C), Whittlesea (C) and Yarra Ranges (S). For these LGAs, the new benchmarks have been incorporated from September quarter 2008, which is two quarters later than other LGAs. The new benchmarks for Alpine (S) and Unincorporated Vic. have also been introduced from September quarter 2008.

15 The boundary changes to geographic areas and new population benchmarks described above were first introduced into the small area unemployment rate time series in March

quarter 2009, with data for previous periods being revised back to either March quarter 2008 or September quarter 2008 (depending on the nature of revisions required, as described above).

Tourism Regions

16 Tourism Regions are defined by relevant state/territory tourism organisations and represent groups of SLAs. Each year, any changes to Tourism Regions (including SLA boundary changes incorporated in the current edition of the ASGC) are applied from the first reference period of the Survey of Tourist Accommodation in the following calendar year (i.e. the March quarter). For a map of Victorian Tourism Regions, and a listing of SLAs within each Tourism Region, please see **Tourism Region Maps and Concordance Files, Australia** (cat. no. 9503.0.55.001).

Thematic maps

17 This publication contains maps illustrating selected characteristics relating to the population in LGAs.

18 For each map, five class intervals, each with a different colour shade, have been used to help interpret the distribution of the characteristic being mapped. LGAs with similar values are grouped in the same class, and the number of LGAs in each class will vary depending on the distribution of the population being mapped.

19 Each map contains a legend showing the colour and values for each class of the mapped data. For simplicity, the ranges are shown as, for example, '9.7-16.3' and '16.3-23.0'. These should be read as 'from 9.7 to less than 16.3' and 'from 16.3 to less than 23.0'. Individual values appear in one range only.

ABS PUBLICATIONS

20 The following ABS publications are referenced in this release of **State and Regional Indicators, Victoria**:

- **Retail Trade, Australia** (cat. no. 8501.0)
- **Labour Price Index, Australia** (cat. no. 6345.0)
- **Sales of New Motor Vehicles, Australia** (cat. no. 9314.0)
- **Australian Demographic Statistics** (cat. no. 3101.0)
- **Births, Australia** (cat. no. 3301.0)
- **Deaths, Australia** (cat. no. 3302.0)
- **Labour Force, Australia** (cat. no. 6202.0)
- **Labour Force, Australia, Detailed - Electronic Delivery** (cat. no. 6291.0.55.001)
- **Labour Force, Australia, Detailed, Quarterly** (cat. no. 6291.0.55.003)
- **Average Weekly Earnings, Australia** (cat. no. 6302.0)
- **Estimates of Personal Income for Small Areas, Time Series, 2003-04 to 2006-07** (cat. no. 6524.0.55.002)
- **Australian National Accounts: National Income, Expenditure and Product** (cat. no. 5206.0)
- **Consumer Price Index, Australia** (cat. no. 6401.0)
- **House Price Indexes: Eight Capital Cities** (cat. no. 6416.0)
- **Building Activity, Australia** (cat. no. 8752.0)
- **Building Approvals, Australia** (cat. no. 8731.0)

- [Engineering Construction Activity, Australia](#) (cat. no. 8762.0)
- [Tourist Accommodation, Small Area Data, Victoria](#) (cat. no. 8635.2.55.001)
- [Livestock Products, Australia](#) (cat. no. 7215.0)
- [Livestock and Meat, Australia](#) (cat. no. 7218.0.55.001)
- [International Trade in Goods and Services, Australia](#) (cat. no. 5368.0)

NON-ABS WEBSITES

21 The websites of the following organisations may provide further information on some of the data provided in this release of **State and Regional Indicators, Victoria**:

- [Department of Education, Employment and Workplace Relations](#) (DEEWR)
- [Dairy Australia](#)
- [Environment Protection Authority, Victoria](#)
- [Department of Sustainability and Environment, Victoria](#)

Glossary

GLOSSARY

Chain volume measures

Annually-reweighted chain Laspeyres volume price indexes referenced to the current price values in a chosen reference year (i.e. the year when the quarterly chain volume measures sum to the current price annual values). Chain Laspeyres volume measures are compiled by linking together (compounding) movements in volumes, calculated using the average prices of the previous financial year, and applying the compounded movements to the current price estimates of the reference year.

Generally, chain volume measures are not additive. In other words, component chain volume measures do not sum to a total in the way original current price components do. In order to minimize the impact of this property, the ABS uses the latest base year as the reference year. By adopting this approach, additivity exists for the period following the reference year and non-additivity is relatively small for the years immediately preceding. A change in reference year changes levels but not growth rates, although some revision to recent growth rates can be expected because of the introduction of a more recent base year (and revisions to the current price estimates underlying the chain volume measures).

Deficit and surplus

A deficit occurs when the sum of all debit entries exceeds the sum of all credit entries, and a surplus occurs when the sum of all credit entries exceeds the sum of all debit entries. The term deficit (or surplus) can therefore be used in relation to various balances, e.g. balance of trade.

Duration of unemployment

The elapsed period to the end of the reference week since a person began looking for work,

or since a person last worked for two weeks or more, whichever is the shorter. Brief periods of work (of less than two weeks) since the person began looking for work are disregarded.

Employed

Persons aged 15 years and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers);
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers);
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week;
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week;
 - away from work as a standard work or shift arrangement;
 - on strike or locked out;
 - on workers' compensation and expected to return to their job;
- were employers or own account workers who had a job, business or farm, but were not at work.

Part-time workers

Employed persons who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.

Particles as PM₁₀

Particles with an aerodynamic diameter of 10 micrometres or less.

Photochemical oxidants and ozone

'Photochemical oxidants' is the technical term for the type of smog found in Australian cities during the warmer months of the year. This type of smog can be invisible or it can appear as a whitish haze.

Photochemical oxidants are formed when sunlight falls on a mixture of chemicals in the air. Ozone is one of the main photochemical oxidants. Other chemicals such as formaldehyde are also found and, like ozone, have adverse health effects. Environment agencies measure the level of ozone because it indicates the total amount of photochemical oxidants in the air. Cities that have abundant sunshine over periods of time, together with moderate winds and high temperatures, are most likely to experience high levels of photochemical oxidants.

Ozone is a gas that is formed when nitrogen oxides react with a group of air pollutants known as 'reactive organic substances' in the presence of sunlight. The chemicals that react to form ozone come from sources such as: motor vehicle exhaust, oil refining, printing, petrochemicals, lawn mowing, aviation, bushfires and burning off. Motor vehicle exhaust fumes produce as much as 70% of the nitrogen oxides and 50% of the organic chemicals that form ozone. (Source: Australian Government Department of the Environment, Water, Heritage and the Arts, <<http://www.environment.gov.au>>)

Re-exports

Re-exports are defined as goods, materials or articles originally imported into Australia which are exported in either the same condition in which they were imported, or after undergoing some minor operations (e.g. blending, packaging, bottling, cleaning and sorting) which leave them essentially unchanged. Included in international merchandise export statistics.

Seasonal adjustment

A means of removing the estimated effects of normal seasonal variations from economic time series so that the effects of other influences are obvious. Seasonal variations are the systematic (though not necessarily regular) intra-year movements of economic time series. These are often the result of non-economic phenomena, such as climatic changes and regular religious festivals (e.g. Christmas and Easter).

State final demand

Conceptually identical to domestic final demand at the national level (the sum of private and government final consumption expenditure and private and public gross fixed capital formation).

National estimates are based on the concepts and conventions embodied in the System of National Accounts, 1993, but for regional (including state) estimates there is no separate international standard. Although national concepts are generally applicable to state accounts, there remain several conceptual and measurement issues that either do not apply or are insignificant nationally. Most of the problems arise in the measurement of gross state product for the transport and storage, communication services, and finance and insurance industries, where production often takes place across state borders. In these cases, a number of conceptual views can be applied to the allocation of value added by state. For more information, see chapter 28 of **Australian System of National Accounts: Concepts, Sources and Methods** (cat. no. 5216.0).

Trend estimates

Smoothing seasonally adjusted series produces a measure of trend by removing the impact of the irregular component of the series. The trend estimates are derived by applying a 13-term Henderson weighted moving average to the respective seasonally adjusted series. Readers are reminded that trend estimates are subject to revision as subsequent months' data become available.

Unemployed

Persons aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and:
 - were available for work in the reference week;
 - were waiting to start a new job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then.

Abbreviations

ABBREVIATIONS

'000	thousand
'000 t	thousand tonnes
\$'000	thousand dollars
\$m	million dollars
ABS	Australian Bureau of Statistics
AIFS	Australian Institute of Family Studies
AIHW	Australian Institute of Health and Welfare
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC06	Australian and New Zealand Standard Industrial Classification, 2006 Edition
ANZSIC93	Australian and New Zealand Standard Industrial Classification, 1993 Edition
ASGC	Australian Standard Geographical Classification
ATO	Australian Taxation Office
Aust.	Australia
B	Borough
BoV	Balance of Victoria
BPM6	Balance of Payments and International Investment Position Manual, Sixth Edition
cat. no.	Catalogue number
C	City
CPI	consumer price index
DEEWR	Australian Government Department of Education, Employment and Workplace Relations
DPS	Department of Parliamentary Services
excl.	excluding
EPA	Environment Protection Authority
ERP	estimated resident population
FT	full-time
GL	gigalitres
ISDR	indirect standardised death rate
LFS	Labour Force Survey
LGA	local government area
m	million
MESC	main English-speaking countries
MMA	Melbourne Metropolitan Area
MSR	major statistical region
n.e.c.	not elsewhere classified
no.	number
NEPM	National Environment Protection Measure
NMESC	non-main English-speaking countries
NSW	New South Wales
Pt	Part
qtr	quarter
Qld	Queensland
RC	Rural City
S	Shire
SD	statistical division
SDR	standardised death rate
SEPP	State Environment Protection Policy
SESCA08	Standard Economic Sector Classifications of Australia 2008
SITC	Standard International Trade Classification
SLA	statistical local area
SNA08	System of National Accounts 2008 version

SNA93	System of National Accounts 1993
SR	statistical region
UHT	ultra heat treated
Vic.	Victoria
WA	Western Australia

Data Cubes (I-Note) - Data Cubes

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- Air quality, By Region
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Data Cubes (I-Note) - Data Cubes

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